

AN EVALUATION OF THE IMPORTANCE OF STAFF-PATIENT  
RELATIONSHIPS AND TREATMENT MILIEU AS PROCESS  
VARIABLES IN ALCOHOLISM TREATMENT

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# ABSTRACT OF THESIS

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Title of Thesis An Evaluation of the Importance of Staff-Patient Relationships and Treatment Milieu as Process Variables in Alcoholism Treatment

The literature was reviewed concerning changes in the rate of alcoholism, possible causes and models, the evaluation of treatment, and the importance of treatment milieu and staff-patient relationships as factors within the treatment process that might contribute toward treatment outcome.

The purpose of the present study was to relate staff and patient milieu perceptions and staff perceptions of staff-patient relationships to alcoholism treatment outcome in five treatment programmes, using a ten-week follow-up period.

It was concluded that it is possible to measure staff and alcoholic patient perceptions of the treatment milieu, using paper-and-pencil techniques, and that these perceptions give a reasonably valid indication of the treatment environment.

Staff who perceived their relationships to patients in more positive terms also perceived the treatment milieu more positively.

Patient improvement in perceived social functioning and decrease in perceived orientation toward alcohol were seen to be independent of patient milieu perceptions and staff perceptions of staff-patient relationships. Changes in patient drinking status index scores were also independent of patient milieu perceptions. Patient milieu perceptions were, however, related to measures of their drinking behaviour and treatment contact during the follow-up period. Staff milieu perceptions were more highly related to patient improvement in social functioning and decrease in orientation toward alcohol than were those of the patient. This might suggest that staff milieu perceptions are more important determinants of patient change during early stages of treatment than are patient milieu perceptions.

Aspects of the treatment milieu thought to be important for favourable treatment outcome were patient involvement in treatment, expression of personal problems, expression of hostility, a clear conception of the treatment programme, and a low level of spontaneity. Reasons for this were discussed, as well as ways in which these aspects might be incorporated into alcoholism treatment regimes.



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## FAREWELL TO WHISKY

Oh, Johnny, my man do you no think o' rising  
The day is weel spent and the nicht's coming on  
The cellar's all deen and the gillstoop is empty  
Oh, rise up, Johnny, and come away home.

The bairnies at home they are roaring and greeting  
Nae meal in the barrel to feed the wee ones  
While ye sit here drinking you leave us lamenting  
Oh, rise up my Johnny and come away home.

Wha's that at the door speaking sae kindly  
It's the voice o' my wee wife Maggie by name  
Come in the door lassie and sit doon beside me  
So rise up my Johnny and come away home.

Oh, Johnny, my man do you no mind the courtin'  
Nae ale house or tavern then ran in your mind  
We spent the long days among the sweet scented roses  
And ne'er gi'ing a thought to gaan away home.

Oh, weel dae I mind the times that you speak o'  
But these days they are gone and will ne'er come again  
And as for the present we'll try for to mend it  
So gie us yer hand Maggie and I'll away home.

And it's Johnny arose and he banged the door open  
Saying cursed be the tavern that e'er let me in  
And cursed be the whisky that made me aye thirsty  
And faretheewell whisky for I'm away home.

Common Scottish Broadside  
Ballad of the 1850's and 60's

## SUMMARY

The literature was reviewed concerning changes in the rate of alcoholism, possible causes and models, the evaluation of treatment, and the importance of treatment milieu and staff-patient relationships as factors within the treatment process that might contribute toward treatment outcome.

The purpose of the present study was to relate staff and patient milieu perceptions and staff perceptions of staff-patient relationships to alcoholism treatment outcome in five treatment programmes, using a ten-week follow-up period.

It was concluded that it is possible to measure staff and alcoholic patient perceptions of the treatment milieu, using paper-and-pencil techniques, and that these perceptions give a reasonably valid indication of the treatment environment.

Staff who perceived their relationships to patients in more positive terms also perceived the treatment milieu more positively.

Patient improvement in perceived social functioning and decrease in perceived orientation toward alcohol were seen to be independent of patient milieu perception and staff perceptions of staff-patient relationships. Changes in patient drinking status index scores were also independent of patient milieu perceptions. Patient milieu

perceptions were, however, related to measures of their drinking behaviour and treatment contact during the follow-up period. Staff milieu perceptions were more highly related to patient improvement in social functioning and decrease in orientation toward alcohol than were those of the patient. This might suggest that staff milieu perceptions are more important determinants of patient change during early stages of treatment than are patient milieu perceptions.

Aspects of the treatment milieu thought to be important for favourable treatment outcome were patient involvement in treatment, expression of personal problems, expression of hostility, a clear conception of the treatment programme, and a low level of spontaneity. Reasons for this were discussed, as well as ways in which these aspects might be incorporated into alcoholism treatment regimes.



PART ONE

REVIEW OF THE LITERATURE

## CHAPTER 1

### Defining an Alcoholic and Considering Changes in the Rate of Alcoholism

#### Section 1.1. Introduction

This chapter will briefly consider the need to establish a working definition of the term "alcoholic". This first chapter will also consider whether or not the incidence of alcoholism appears to be increasing or decreasing. The conclusion concerning increase or decrease will be based on a review of different types of statistics ranging from inpatient admissions to consumption and arrest statistics. Particular problems in interpreting these statistics will also be discussed.

#### Section 1.2. The Need for Defining An Alcoholic

The term "alcoholic" must be defined if we are to evaluate the effects of treatment with any degree of adequacy. A competent definition allows the development of clear standards regarding which patients are to be included or accepted in the study. It also allows us to arrive at clearer estimates of the prevalence of alcoholism. A definition that stresses the physical sequela will arrive at a prevalence estimate based on physiological indicators of alcoholism, such as cirrhosis. A second definition, which takes into consideration more of

the physiological and social indications that might bring an individual to treatment, will more likely arrive at a prevalence rate based on hospital admissions or outpatient statistics. In choosing an adequate definition, we must, therefore, select one that incorporates physiological, psychological and social indications so that we can arrive at a prevalence rate based on a broader segment of the alcoholic population. Accordingly, we will examine changes in the prevalence rates from statistics that are based on these indicators.

The definition of the alcoholic, formulated by the World Health Organization (1952), includes some mention of all three main indicators. It is also sufficiently broad to allow a good deal of flexibility. For this reason, the WHO definition will be employed in the present study. It is as follows:

Alcoholics are those excessive drinkers whose dependence on alcohol has attained such a degree that they show noticeable mental disturbance, or an interference with their mental and bodily health, their interpersonal relations and their smooth social and economic functioning, or who show the prodromal signs of such development.

They, therefore, require treatment.

This definition has the advantage of relating alcoholism to the need for treatment. Because of its mention of treatment, the definition makes particular sense when discussing the prevalence rate based on admission to hospital or on outpatient statistics. It seems less applicable to prevalence data based on consumption or mortality. However, since this thesis is primarily concerned with treatment and since the definition has attained considerable acceptance, it will be retained.

Section 1.3. Total Admission  
Rates to Mental Hospitals  
and Psychiatric Units

Now that we have satisfactorily defined what is meant by an alcoholic, we can go on to consider changes in the incidence of alcoholism. One of the ways of examining trends in the prevalence of alcoholism is by looking at changes in the total admission rates to mental hospitals and psychiatric units for alcoholism or related disorders. Warder and Ross (1971) reported that alcoholism accounted for 7 percent of the total admissions to Scottish mental hospitals in 1959 and 14 percent in 1967. This is a 100 percent increase in less than a decade. Similarly, Warren and Carstairs (1971) report a 15 percent increase in admissions for alcoholism and alcohol psychosis in Scottish mental hospitals and psychiatric units, between 1966 and 1970. The figures for 1970 represent uncorrected admission rates and should be taken with caution. Warder and Ross (1971) report a further increase for the 1971 figures, in that alcoholism accounted for 16 percent of admissions.

A similar trend toward increasing admission rates was reported by the DHSS (1972). The number admitted with a diagnosis of alcoholism in 1962 was 1,439 as opposed to 3,644 in 1971. It should be pointed out that the figures for 1962 do not include admissions to psychiatric units in general hospitals, possibly greatly inflating the magnitude of the increase. Even taking this possibility into consideration, the increase is large enough to suggest a trend toward rising admissions.

Postulating an increase in alcoholism from an increase

in admission rates rests on the assumption that there is a direct parallel between increased alcoholism and increasing admission rates. In making this assumption, one must allow for the possibility that increases in admission rates might partially be a function of more favourable attitudes toward gaining treatment for alcoholism.

#### Section 1.4. Estimating the Prevalence of Alcoholism from Outpatient Statistics

While inpatient statistics provide a satisfactory indicator about increases or decreases in the rate of alcoholism, they fail to take into consideration those alcoholics not in need of inpatient treatment. It therefore becomes difficult to have an adequate indication of the severity of alcoholism within the community, as a number of alcoholics are not being included in the statistics (Parr, 1957). In order to gain a more accurate indication of the severity of the problem, it ideally becomes necessary to consider both inpatient and outpatient statistics.

There are substantial problems that one encounters when considering outpatient statistics. One of the most vexing problems is choosing the most suitable agency or agencies from which to draw one's statistics. Different agencies are likely to attract different clients. McCance and McCance (1969) state that mental hospital programmes are over-representative of the middle and upper classes. The "Skid Row" alcoholic is more likely to be known by law enforcement agencies than treatment agencies (Rubington, 1972; Ross, 1969). There also exists the possibility that outpatient statistics might be biased by over-reporting

or under-reporting. Lastly, both inpatient and outpatient data leave unaccounted for those alcoholics who do not seek treatment and who are not in legal difficulties that would necessitate involuntary contact. Rubington (1972) has asserted that there are 3,810,000 "hidden" alcoholics in the United States. Because of the above difficulties inherent in outpatient statistics, they will not be examined with reference to increases or decreases in the prevalence of alcoholism.

#### Section 1.5. Estimating the Prevalence from Consumption Data

As mentioned earlier, both inpatient and outpatient statistics leave a considerable number of alcoholics unaccounted for. Given this, it becomes necessary to consider other data which will help us to note any possible increases or decreases in the rate of alcoholism. One possible source of data is the consumption of alcoholic beverages.

Total consumption of spirits within the UK has risen from 15.3 million proof gallons in 1960 to 21.3 million proof gallons in 1971. Similarly, total consumption of beer has risen from 27.3 million bulk barrels to 35.8 million bulk barrels for the same time period. Wine consumption has also risen from 18.7 million gallons to 42.2 million gallons within the same time period (Central Statistics Office, 1972).

A consideration of consumption figures rests on the assumption that there is a positive correlation between increased consumption and increased prevalence of

alcoholism. Keller (1962) has noted that this is not always the case. Population increases might partially account for the consumption increases (HEW, 1973). Other factors, such as licensing law changes and labour disputes affecting production, can also serve to bias consumption figures (Horner, 1972; Krokfors, 1970). Because consumption data may be biased by intervening variables, it would seem sensible to only cite increases in consumption as a gross indicator of increased alcoholism.

#### Section 1.6. Estimating the Prevalence of Alcoholism from Mathematical Formulae

Jellinek proposed a formula for estimating the prevalence of alcoholism based on his work with Jolliffe (1941) in which they analysed the mortality rates from cirrhosis of the liver in several locations during times of consumption and prohibition. The formula is  $A = (PD/K)R$  where P (a constant) is the percentage of deaths assumed to be caused by alcoholism; D=the number of deaths reported in a given year; k (a constant) is the percentage of alcoholics with complications dying of liver cirrhosis; and R is the ratio of all alcoholics to those with liver cirrhosis.

The use of the formula allows one to arrive at a quick estimate of the prevalence of alcoholism and for this reason it seems attractive (Jones, 1963). The formula, however, is fraught with difficulties in that constants might not actually be constant (Popham, 1956). Also, the formula does not take into consideration intervening variables, such as population density (Keller and



Efron, 1956). Seeley (1962) has developed an alternative formula which corrects for population density, but its development was based on United States data and may therefore not be applicable to the UK. The main drawback of the Jellinek formula approach is that one cannot make estimates over time, since the numbers are fixed for a particular year. Seeley's formula does seem to avoid this problem in that there are no yearly constants. Further work, however, would be necessary before we could use this formula as a way of estimating the prevalence rate over time. For this reason, we will not develop this approach any further.

#### Section 1.7. Estimating the Prevalence of Alcoholism Directly from Mortality Data

The method for estimating the prevalence of alcoholism directly from mortality data relates to the previously discussed method. Instead of estimating the prevalence of alcoholism from a formula, which converts deaths from cirrhosis to an estimated number of alcoholics, the latter method examines mortality data directly. This has the advantage of avoiding the problems of fixed yearly constants, which have been discussed previously. Direct examination of mortality data rests on the assumption that changes in the mortality rate due to alcoholism should provide a rough indication of increases or decreases in the rate of alcoholism.

The estimated death rate for male alcoholics rose from 26 persons in 1961 to 43 in 1962. The actual

mortality rate for males increased slightly from 1967 to 1971. The estimated mortality rate for cirrhotic males declined from 746 persons in 1961 to 735 persons in 1971. The actual mortality rate for cirrhotic males increased from 685 persons in 1967 to 806 persons in 1971 (Office of the Population Census and Surveys, 1973). The fact that there is an increase in the cirrhotic mortality rate, despite an improvement in alcoholism treatment facilities might be due to an increase in the prevalence of alcoholism.

#### Section 1.8. The Prevalence of Alcoholism from Other Vital Statistics

Just as there is probably a relationship between admission to hospital, outpatient rates, alcohol consumption and mortality data and the prevalence of alcoholism, so should there be a relationship between traffic violations, crimes and homicides, and divorce rates to the prevalence of alcoholism, in that marital difficulty, criminality and drunk driving are seen as problems common to alcoholics (Jones, 1963; Nicol et al., 1973).

In England and Wales, the number of proved offenses for drunkenness rose from 49,654 in 1955 to 84,168 in 1972 (Home Office, 1973). It was not clear, however, whether there were any changes in the law or in enforcement practices which might have contributed to the substantial change. In 1963, there were 7,351 offenses and alleged offenses for driving under the influence of alcohol and other drugs in England and Wales. In 1972, there were 2,296 offenses for driving under the influence of drink or drugs and 43,616 convicted for driving with

unlawful blood alcohol levels. A direct comparison between 1963 and 1972 is not possible, as there were changes in the way the data were collected. In addition, the introduction of the "Breathalyzer" during this time also contributed to the rising statistics, making direct comparisons unfeasible. Similarly, while the rate of divorce and separation has increased markedly in recent years (Central Statistics Office, 1972), it is not possible to draw a firm connection between increases in divorce or separation and increases in alcoholism as the increases could have been brought about by changes in the divorce laws, although some of the increase would probably still be attributable to increasing alcoholism. Given the problems of intervening variables that affect vital statistics, it would appear that these vital statistics, although interesting, must be accepted with extreme caution.

#### Section 1.9. Estimating the Prevalence of Alcoholism from Survey Data

Several authors (Edwards, et al., 1973; Parr, 1957) have attempted to estimate the prevalence of alcoholism using the survey approach. Unfortunately, the survey approach is subject to considerable bias (Edwards, 1973), in that certain segments of the community are less likely to be represented in the sample. This is particularly the case in surveys of general practitioners (Williams and Glatt, 1966). Also, the survey approach is extremely time consuming, so that it is often not possible to do a longitudinal survey like that of Cahalan (1970). Since we are primarily interested in increases or decreases in the

rate of alcoholism over time, survey data, as they now exist, are of very little use and, therefore, will not be examined.

#### Section 1.10. Overall Trends in the Prevalence of Alcoholism

After examining the figures presented in the previous sections, it can be stated that the prevalence of alcoholism appears to be increasing. The statement follows from the idea that changes in hospital admission rates, consumption rates and the number of traffic offenses roughly parallel increases or decreases in the level of alcoholism, even if we allow for the limitations of the figures and the intervening variables, which have already been discussed. Given the increase in alcoholism, it seems prudent to undertake further research, particularly in relation to treatment effectiveness and the underlying variables within the treatment process that might account for such effectiveness, in the hope that future treatment can be improved. This is the underlying purpose of the present study. Its departure from previous work in this area will be clarified in subsequent chapters.

#### Section 1.11. Summary

The need for choosing an adequate definition of alcoholism was briefly discussed in this chapter. In this context, it was decided to adopt the definition of the World Health Organization (1952).

Hospital admission rates, mortality data and other vital statistics were examined for evidence of an increase

in the prevalence of alcoholism. After considering these figures, it was decided that the evidence points to an increase in the incidence of alcoholism, even if we allow for the limitations of the data.

## CHAPTER 2

### Causes and Models of Alcoholism

#### Section 2.1. Introduction

The causes of alcoholism are many and varied (HEW, 1973). Probably the most important determinant of one's theoretical orientation with respect to the causes of alcoholism is one's professional or academic orientation. Psychiatrists and psychologists will be more likely to stress the psychological determinants of alcoholism, while sociologists are more likely to place emphasis on environmental determinants. In the main, there appear to be three major areas of hypothetical causation: namely, physiological hypothesis; psychological hypothesis; and environmental hypothesis. For the purposes of the present discussion, environmental causes will comprise all influences within the external environment of the patient. This is thought to include such important influences as the spouse, community, cultural attitudes, etc. These major areas of causation will be discussed in this chapter.

Apart from possible causes, the second area of consideration in this chapter will be two basic models of alcoholism, these being the disease model (Jellinek, 1960) and the behavioural or social-learning model (Albrecht, 1973). Models differ from causative theories in that the

former merely explain the unfolding or the progression of the phenomenon called alcoholism. Within the two models under discussion, there can be contained several notions as to the causes of alcoholism.

### Section 2.2. Physiological Causes of Alcoholism

Several authors have maintained that there is a physiological or biochemical basis for alcoholism. Dember and Kristofferson (1955) found that rats who were more susceptible to auditory seizures increased their consumption of alcohol. The authors hypothesized that rats might have drunk alcohol because of its relaxant properties, which could be thought of as counteracting the unpleasant effects of the seizures.

Some work has been done looking at the relationship between nutritional deficiency and alcohol consumption (Williams et al., 1955). Brady and Westerfeld (1947) found that the more complete the diet of the rat, the longer it was likely to refrain from ingesting alcohol. However, the authors noted that a good diet did not prevent the eventual return to alcohol consumption. They also found that rats consumed relatively large amounts of alcohol when on diets deficient in B complex vitamins. Interestingly, once a high rate of alcohol consumption had been reached, the restoration of B vitamins had little effect. Mardones (1951) concurred that alcohol consumption in rats is, at least in part, nutritionally determined. Mirone (1957) found that rats' consumption of alcohol was significantly increased by a very high protein



diet, a protein-free diet and a diet deficient in B complex vitamins. This would seem to suggest that there is an optimal amount of protein that is necessary for low alcohol consumption. Mardones et al. (1955), while agreeing with similar findings, noted that any choice between alcohol and sucrose solutions by rats might be governed by the concentration of sucrose.

Segovia et al. (1970) have extended these studies still further. They noted a possibility that alcohol consumption in rats might also be genetically determined. Genetic distribution, according to the authors, might affect rats' ability to metabolise the sucrose solution and, therefore, to choose it over the alcohol solution. This would suggest that what differentiates "drinking" from "non-drinking" rats is their ability to metabolise competing solutions, in the free-choice situation. In the light of similar evidence, Mardones (op. cit.) also concluded that alcohol consumption in rats was probably nutritionally and genetically determined. While these results are interesting, one must question whether these findings can be generalised to apply to human subjects.

Sytinsky (1973) has shown that individuals differ in their ability to synthesize morphine-type alkaloids, which he feels are a stimulus to the hypothalamus or pleasure centre. In individuals who do not synthesize enough alkaloids, it is possible, according to this author, that bouts of heavy-drinking will, in turn, help to produce the alkaloids which will stimulate the hypothalamus. While promising, this idea has to be subjected to further

investigation.

Other authors have investigated the importance of direct hereditary factors in alcoholic patients. Winokour et al. (1970) suggested the possibility that a sex-linked recessive gene might be making a contribution to alcoholism. McClearn (1973), after reviewing the animal and human research dealing with genetic influence in alcoholism, concluded that, while the animal research is far more convincing, the human research presents at least enough evidence to warrant the possible consideration of hereditary factors. The HEW (1973) report, on the other hand, concludes that there is not enough evidence at present to warrant acceptance of the genetic hypothesis.

Lastly, Silkworth (1937) has gone so far as to postulate an allergenic factor, but Robinson and Voegtlin (1952) subsequently conducted a number of experiments with rabbits which failed to support the genetic hypothesis. In summation, it would appear that the evidence linking alcoholism to physical causation is at best confusing. Even if one were to accept the possibility of physical causation, one could always argue that the environment provides the final determinant, with hereditary and physiological factors acting to predispose the individual toward alcoholism (Jellinek, 1960). There is not enough evidence at present to allow us to accept that some biological or hereditary factor is a direct cause of alcoholism.

### Section 2.3. Psychological Causes of Alcoholism

Several authors have hypothesized that certain types of psycho-pathology lead to alcoholism, or that alcoholism is a manifestation of psychological disturbances. Cutter et al. (1973) have reported that feelings of inhibition are important in determining drinking. McClelland et al. (1972) adopt a more Adlerian perspective in claiming that alcoholism is the result of power striving or unmet needs for power. Other authors assume a more psychoanalytic orientation. Knight (1937), for example, states that there is often over-identification with the mother, if the father is punitive and severe. In this instance, the alcoholic cannot identify with the father and, thus, develops a loss of prestige, which is satisfied with alcohol. Moreover, drinking allows the patient to assume a more masculine role (Schilder, 1941), which he is not otherwise able to do because of over-identification with the mother. Lolli (1956) and Walowitz and Barker (1968) maintain that the alcoholic is oral-dependent. He (the alcoholic) is longing for warmth, contact comfort, a feeling of food in the stomach, etc. In the context of psychoanalytic theory, these qualities are seen to have been provided by the mother during the oral stage of personality development and are now being provided by alcohol.

Kessel and Walton (1965) indicate that while psychoanalytic theory, as described above, is of great value in understanding the personality structure of the alcoholic, the theory does suffer from some limitations. The theory,

according to Kessel and Walton, is not invariant. In other words, while many patients might exhibit oral-dependent characteristics, only some become alcoholic. Secondly, and more importantly, the therapeutic interventions that generally follow from psychoanalytic theory are usually of lengthy duration and are not directly applicable to most short-term treatment programmes, which is the most common type of treatment offered.

Personality theorists have looked for constellations of traits in alcoholic patients. The inference to be drawn from this is that there are a few alcoholism-prone personality types or, better still, a unique alcoholic personality structure. Williams et al. (1971) administered a psychological test battery to both alcoholic patients and heavy drinking college students. The authors found that both groups scored high on anti-social behaviour. It was concluded that, since heavy drinking precedes alcoholism, perhaps anti-social behaviour is a causative factor in the development of alcoholism. This assumption is not necessarily correct, since one is never sure whether the heavy drinking caused the anti-social behaviour or vice versa.

Gozali and Sloan (1971) indicated that alcoholics were significantly more internally-oriented than a non-alcoholic control group. Internal-External orientation was measured by the Rotter I-E locus of control scale (Rotter, 1966). This finding has been confirmed by Distefano, Jr. et al. (1972). Butts and Chotlos (1973), doing similar work, produced opposite findings; namely,

that alcoholics are more externally-oriented than other subjects. More work needs to be done before we can say whether or not Internal-External orientation is an important personality dimension.

Tokar et al. (1973) noted that alcoholics have several personality traits in common. These include depression, dependency, hostility, self-destructiveness and sexual immaturity. Zwerling (1959) also noted a similar constellation of characteristics, while other authors (Moore and Ramseur, 1960; Varela, 1970; Burton and Kaplan, 1968; Gibson and Becker, 1973) have noted the presence of at least one of the characteristics mentioned above. Lawlis and Ruben (1971) conducted a study of alcoholic personality types, using the "16PF" personality test, an instrument measuring different facets of personality. The authors concluded that there was no evidence to accept the notion of a single alcoholic personality, but rather three separate clusters of personality factors. The conclusion agreed with that of Diethelm (1955), who maintained that there was insufficient evidence to justify an "alcoholic personality". Overall, the evidence would appear to suggest that the pre-alcoholic personality is not a useful concept for work in this area, especially since we cannot say for sure whether drinking determines the personality characteristics, or vice versa (HEW, 1973). A more fruitful approach would suggest that one should attempt to isolate three or four main clusters of personality characteristics, rather than looking for one underlying personality.

Another major psychological theory that has been put forth to explain alcoholism is learning theory. Learning theory, according to Conger (1956) and Kingham (1958) states that a subject will learn the association between a "stimulus" and a "response" provided that there is suitable reinforcement. Conger maintained that the reinforcement is often the reduction of some unpleasant state or feeling. Drinking is the response; feelings of anxiety, the stimulus; and reduction of anxiety, the reinforcer. This approach rests on the assumption that alcoholism is a tension-reducing mechanism, which, according to Cappell and Herman (1972), is not always the case. Reinforcers might act in other ways than merely reducing tension, in that they (the reinforcers) may provide things which are seen by the patient as positive, without directly reducing tension. Vogel-Sprott (1967) indicated that such reinforcers are often present in the environment in the name of companionship, friendship, increased masculinity, attention from one's wife, etc. In other words, alcohol intake may be reinforcing because it brings about (in the eyes of the patient) these desired conditions, even if the alcohol intake does not directly reduce tension.

One might, however, argue that the learning theory idea does not adequately explain why patients continue to drink in spite of punishment they receive from employers, spouses, etc. One explanation is that alcohol ingestion only has to be reinforced intermittently, once the behaviour is established. We have seen from work with animals that intermittent reinforcement is quite effective in



maintaining behaviour (Millenson, 1967). Another explanation, offered by Vogel-Sprott (1967), is that the reward, in terms of reduction in tension or a pleasurable physiological response, is applied immediately, while the punishment is often delayed. In summation, it would appear that learning theory does have the ability to partially explain the acquisition and maintenance of excessive drinking behaviour. It does, however, seem slightly superior in its ability to explain the maintenance of drinking behaviour rather than its acquisition. Perhaps what is needed is the combination of learning theory with some other causal approach.

#### Section 2.4. Environmental Causes of Alcoholism

As mentioned before, environmental causes are considered to be those that are extrinsic to the individual. Jellinek (1960) has noted the presence of economic factors in relation to alcoholism. He noted that certain countries depend heavily on the production of alcoholic beverages for economic sustenance. In these countries, according to Jellinek, it is almost unpatriotic not to consume large amounts of alcohol. In certain countries, where there is marginal food production, cheap wine makes up a large part of the caloric intake. By pointing to economic factors, one is not ruling out the possibility of other causal agents. Otherwise, all wine-producing countries would have high rates of alcoholism. Social and psychological factors must also be considered. In societies which sanction high consumption of alcohol,



persons with certain psychological or physiological predispositions might be more inclined to consume large amounts of alcohol.

Lolli et al. (1952) noted that Italians, while producing large amounts of wine, show less propensity toward alcoholism than do the French. One explanation for this, according to the above authors, is that the rich carbohydrate diet of the Italians counteracts the effects of the alcohol.

Bales (1946) noted that the culture can influence the consumption of alcohol in three ways. The first influence is the amount of anxiety the culture produces in its members. Cultures which generate a high degree of insecurity in their members, due to constant threat of war, famine, insects, disease, etc., have a high degree of insobriety, all other things being equal. Cultures which have also had their societal structure broken up by a more dominant group tend, in some instances, to have a high degree of anxiety related to whether or not they can survive, and also have a higher degree of alcoholism. Another factor, according to Bales, is cultural attitudes toward drinking. Cultures which stress moderate drinking --for example, the Italian and the Jewish cultures--have a low rate of alcoholism. This might be due to the fact that the drinking is highly ritualized. It might also be due to the fact that Jews have always held an insecure social position within the wider Christian community and, therefore, do not want to call attention to themselves by excess alcohol consumption (Myerson, 1940). Bales (op. cit.)

noted that cultures which stress a utilitarian attitude have higher rates of alcoholism. Lastly, he speculated that cultures which provide alternative means of expressing anxiety will have lower rates of alcoholism. Negrete (1973) has noted that cultural subgroups which preach abstinence have a higher proportion of alcoholics, but a lower number of drinkers in total. Perhaps the preaching of abstinence places certain persons at odds with general cultural norms and thus creates tension which leads to higher alcohol consumption.

Kinsey and Phillips (1968) investigated whether or not anomie, the psychological state derived from the individuals inability to obtain goals within society, was a causative factor in alcoholism. They found that anomie increased as the patient's alcoholism progressed. They could, therefore, not rule out the possibility that alcoholism caused anomie, rather than the other way around. Jessor et al. (1968) investigated a similar concept, thought to be associated with drinking in university students. They found that students whose goals were unmet scored higher on a measure of drinking problems than did a group of students whose goals had been obtained. The results of both studies appear to suggest a relationship between alcohol ingestion and the degree to which one perceives his goals as not being met, to the extent that we can rule out the possibility that alcohol ingestion leads to unmet needs. Explanations which postulate that alcoholism is caused by anomie might account for the higher rate of alcoholism among certain minority groups within

the United States; most notably, Indians and black Americans. In summary, it appears that the evidence presented supports Shalloo's (1941) contention that no clear conclusion can be drawn from reviewing the literature concerned with cultural influences, other than to say that they make some contribution, along with the probable contribution of psychological and physiological factors.

Other factors within the environment can contribute to the incidence of alcoholism. Falk (1970) has suggested that income and education influence alcohol consumption. Those with more education and higher incomes are likely to have more leisure time and to be able to afford to consume more alcoholic beverages. Goldman et al. (1973) studied the effects of group decision-making on the drinking behaviour of institutionalised alcoholics. They found that group decisions regarding the consumption of alcohol tended to be in the direction of decreased consumption, after the group had been drinking for some time. Perhaps, the affiliative needs of the members were satisfied as the group developed, so that the group members could reduce their consumption of alcohol. Hersen et al. (1973) studied the interaction between alcoholics and their wives. They concluded that the behaviour of the wife often tended to act as an incentive for the husband to consume more alcohol. Haer (1955) has shown that drinking patterns are often shaped by one's friends and, secondly, by one's family. Lastly, Busch et al. (1973) have speculated that loneliness in middle-aged women, who do not have occupations to return to after they have fulfilled their functions

as mothers of their families, may lead to women increasing their alcohol consumption. These are only some of the environmental factors that have been postulated to be associated with alcoholism. As has been mentioned before, it is not clear whether these additional environmental factors bring on heavy drinking, or whether heavy drinking brings on these conditions we have spoken of (Moore, 1968). Only a longitudinal study would help to determine the causality.

Looking at the evidence presented in sections 2.2 through 2.4, concerning causes of alcoholism, it seems clear that no one causal factor can account for alcoholism. Perhaps, some combination of the above factors acts in concert to produce alcoholism. This position of multiple causality is consistent with the work of Williams (1946) and Marconi (1970), who caution against taking a narrow viewpoint regarding the causes of alcoholism.

#### Section 2.5. The Disease Model of Alcoholism

In the next two sections, two main models of alcoholism are considered. The present section will briefly elucidate the disease model, while the next section will briefly explain the behavioural model. Models differ from causes in that models try to explain the development of the disease, rather than its original causes.

The main proponent of the disease model has been Jellinek (1960), although he was not the first to propose it (Jellinek, 1941). One of the hallmarks of the disease model is that alcoholism passes through a predictable

development of stages (Jellinek, 1946, 1952; Kessel and Walton, 1965, Park and Whitehead, 1973). Even if there is not a definite progression of symptomatology, the model at least assumes a commonality of symptoms (Gitlow, 1973). Another assumption of the disease model is that the individual is held to be ill and, therefore, not morally responsible for his condition (Tremper, 1972).

Within the context of these assumptions, Jellinek (1960) postulated several kinds of alcoholism. Alpha alcoholism refers to a state where the individual is psychologically addicted to alcohol. Beta alcoholism is classified as alcoholism with physical complications, where there is no overriding physical or psychological addiction. Gamma alcoholism most clearly follows the assumptions of the disease model. It assumes that the individual consumes large amounts of alcohol and, in so doing, increases his tolerance to alcohol. This is followed by an alteration of the cell metabolism, in which the individual attempts to cope (biologically) with the increased ingestion of alcohol. Withdrawal symptoms soon follow,<sup>1</sup> along with marked changes in behaviour and periodic loss of control over one's drinking. In Gamma alcoholism, there is a definite progression from psychological addiction through changes in behaviour. Delta alcoholics differ from Gamma alcoholics, in that the former do not lose control of their drinking. Rather, Delta alcoholics tend to drink continuously, giving rise to a general inability to abstain, even for short periods of time. This inability to abstain is the hallmark of Delta alcoholics.

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<sup>1</sup>When one stops drinking.

Of the above types of alcoholism, only Delta and Gamma alcoholism can truly be considered diseases.

On the surface, it would appear that the disease model has two main advantages. The first advantage is that it places alcoholism out of the realm of moral failing. Patients are considered to have a disease and, therefore, to be in need of treatment. The second advantage is that the concept of disease is quite understandable, within the context of most Western cultures. People generally assume that diseases are treatable. This is quite a useful concept, since it allows the treatment agency to convince the patient and his family that it is possible to do something constructive about alcoholism, in a way that will not generally be contaminated by elements of moral failing (Kessel and Walton, 1965). It should be noted that this idealized situation is not always the case. Material presented later in the thesis shows the presence of negative and moralistic attitudes among the professional community. Nonetheless, when used judiciously, adherence to the disease model at the beginning of treatment can be quite a useful way of getting the alcoholic to make preliminary contact with the treatment agency.

The disease model has several disadvantages, however. It places individuals in the role of being "sick" (Tremper, 1972; Roman and Trice, 1970). This sick role places the alcoholic in a continually dependent situation, where he must forfeit a great deal of responsibility and be dependent on others' help to cure him. We have already seen that some of the personality characteristics of the



alcoholic are dependency and a misguided sense of responsibility (measured in terms of the Internal-External dimension). Adhering to the disease model, which accentuates the patient's dependency and lack of responsibility, may, in the long run, have deleterious consequences.

Cahalan (1970) argued that the disease concept masks other possible considerations. Looking at alcoholism as a disease bars other competing considerations, such as the possibility that it is a symptom of another underlying problem. Additionally, the disease concept of alcoholism, as outlined by Jellinek, has included such questionable concepts as "craving" and "addiction", which have, to date, not been successfully integrated into the disease model. Whether or not "craving" and "addiction" are necessary aspects of alcoholism as a disease has been extensively debated by Jellinek et al. (1955), without any resolution. Lastly, and perhaps most importantly, the disease concept of alcoholism has meant that treatment is often considered the province of the medical profession. In the beginning, this allowed the treatment of alcoholism to gain credibility. It also insured that hospitals began to accept alcoholics for treatment. It has, however, especially in Britain, meant that the physicians, particularly psychiatrists, still control alcoholism treatment policy and often look askance at others' taking a central role in determining treatment policies. This is most unfortunate, since the number of trained medical personnel will probably never be sufficient to meet the demand for treating alcoholic patients. In order



to alleviate the staff shortage, we must begin to adopt models that allow non-medical and paraprofessional personnel to assume wider responsibility. Madden and Kenyon (1975) have shown that treatment which gives a great deal of responsibility to non-medical professionals and recovered alcoholics has produced results comparable to other programmes more oriented toward the medical model of treatment. In summary, it would appear that, except in the initial stages of treatment, the disease model holds very few advantages over other models.

#### Section 2.6. The Behavioural Model of Alcoholism

Given the disadvantages of the disease model, one should consider alternatives. One alternative is the behavioural or social-learning model (Albrecht, 1973). The social-learning model assumes that drinking behaviour and attitudes regarding drinking are learned from one's culture. Culture can be defined in a broad sense (i.e., as the larger reference group, such as American or British culture or one's religion) and in a very narrow sense (i.e., one's friends, family, etc.). The social-learning model assumes that excessive drinking, or drinking at all, for that matter, is not a natural behaviour. It is only maintained because it is rewarded. Rewards might vary from reduction of homosexual feelings to the gaining of friends or a business contract, or anything in between. As mentioned before, reinforcers might come from the neighbourhood, the culture, the spouse or the individual. The social-learning or behavioural model makes no assumptions

regarding the stages of symptomatology. It concentrates on delineating how the behaviour was learned and how best to unlearn it. It allows for several divergent interventions, ranging from aversive conditioning to psychoanalysis. In advocating the behavioural model, we are not advocating merely an elimination of drinking behaviour (although this may be important), but rather an examination of the antecedents and reinforcers of the drinking behaviour. It is our belief that the behavioural model, which emphasises social learning, is more flexible than the disease model. It also has the advantage of allowing more people to assume responsibility in the treatment process, as it does not imply that treatment is within the sole province of the medical profession.

The behavioural model is, however, not without its disadvantages. The main disadvantage is ambiguity. The behavioural or social-learning model is often postulated as a cause of alcoholism, as well as a model for its development. It is the opinion of the author that the model is less suited to explain causes than the development of alcoholism. In other words, we can view the social-learning model as helping to explain the unfolding or continuation of alcoholism, once the process of heavy drinking has begun, while being much less able to account for why heavy drinking started. In light of this, it might be better to say that some physiological or psychological factors predispose the patient toward developing the behaviour which will then be maintained or strengthened by the reinforcers that have already been discussed. Another

disadvantage of the social-learning or behavioural model is that, if not careful, one can take it to an extreme. It has been the clinical experience of the author that some staff, who adhere to the model, tend only to focus on overt behaviour which is reinforcing, while losing sight, or denying the importance, of unconscious conflict.

#### Section 2.7. Summary

The present chapter discussed causes and models for alcoholism. Physiological, psychological and environmental causes were discussed. It seems likely that no one cause has sufficient explanatory power. More likely, it would appear, that some combination of these causes are operating in tandem to cause or contribute toward alcoholism. Both the disease model and the behavioural or social-learning model were discussed in this chapter. In the opinion of the author, it would appear that the behavioural model has distinct advantages over the disease model in terms of its flexibility.

## CHAPTER 3

### Issues and Problems in Evaluation

#### Section 3.1. Introduction

In chapter 1, we noted the importance of evaluating aspects of the treatment process for alcoholics, given the probable increase in the incidence of alcoholism. Before we discuss the literature relating to certain important aspects of treatment and before we proceed with an evaluation of the treatment process, it seems prudent to focus, in a general sense, on issues and problems involved in the evaluation of treatment programmes. This will make it possible to place specific evaluative studies, discussed in the next chapter, in a clearer perspective.

#### Section 3.2. The Need for Evaluation

Shipman and Lyden (1974) have recognized that programmes often fall short of achieving their stated goals. Some programmes are closer to achieving their stated goals than other programmes. Given that we are often confronted with limited financial resources for social services (Kadushin, 1974) and given that every programme is not uniformly effective, it would make some sense to continue the effective programmes while "weeding out" the ineffective programmes. Evaluation research can help us decide the degree to which programmes are not meeting their

stated goals. If the discrepancy between goals and achievements is narrow, the results from the evaluation could be used to help the programme better achieve its goals (Shipman and Lyden, *op. cit.*), by indicating what improvement could be made or by delineating areas that need improvement. If the discrepancy between achievement and goals is large, it may be wiser to phase out the programme. Thus, evaluation helps us to make decisions about programmes in a climate of shrinking financial expenditures.

Even if we had unlimited funds, it would still be our professional responsibility to provide the best service available to meet the needs of the society (Patti, 1974) and the clients, as often it is the client and not the professional who has a better sense of what is best (Ritson, 1969).

Lastly, where the role of non-medical professions is challenged, it is the responsibility of the profession in question to demonstrate its competence and to delineate areas where it can make a contribution, as opposed to areas that should best be left to other professionals. This will, hopefully, result in less ambiguity concerning the role of various professionals in the treatment process. Such a reduction in ambiguity, according to Briar (1973), will help the general public to have a better understanding regarding the helping professions. To date, this is an area where evaluation has not been used extensively and, therefore, would offer interesting opportunities for application and development.

### Section 3.3. A Working Definition of Evaluation

As mentioned in chapter 1, a working definition has the advantage of reducing ambiguity. A definition should be flexible enough to be applicable to a number of different situations. It was decided to adopt the following definition of evaluation in the present study:

...the systematic accumulation of facts for providing information about the achievement of programme requisites and goals....The facts of the evaluation may be obtained through a variety of relatively systematic techniques...

The above definition has been used by Jaffee (1974) and is one that has been developed by Tripodi, Felin and Epstein.

### Section 3.4. Types of Evaluation

If we examine the definition given in the previous section, we see it recognizes that data, for evaluative purposes, can be collected in several different ways. These ways can be grouped under three main types of evaluation. These, Jaffee (op. cit.) calls Program Monitoring Techniques, Cost Analytic Techniques and Social Research Techniques. Program Monitoring Techniques are most useful for determining the type or the kinds of effort expended toward the achievement of a programme's goals. Cost Analytic Techniques assess the efficiency of the programme in terms of the relative cost of achieving the programme's objectives. Social Research Techniques are used mainly to assess the effectiveness of a programme in terms of the degree to which it meets its goals or the degree to which it meets pre-determined criteria of success. The

present study is concerned with both programme monitoring and programme effectiveness. The programme monitoring aspect of the study is concerned with examining or measuring aspects of the treatment process, i.e., the way in which staff relate to patients and the treatment atmosphere or treatment milieu . The programme effectiveness aspect is concerned with whether or not treatment is contributing to patient improvement in certain well-defined areas that will be enumerated in later chapters. More importantly, the present study is concerned with seeing whether or not the aspects of the treatment process already mentioned make any contribution to the effectiveness of treatment. This differs from almost all previous alcoholism treatment research, which has primarily concentrated on programme effectiveness (Crawford et al., 1973) without considering aspects of the treatment process that might contribute toward, or detract from, treatment outcome.

Although this study is concerned with programme monitoring, it does not attempt to perform this function with techniques that have been traditionally associated with this task, such as time and motion studies, administrative audits, etc. (Jaffee, 1974). Rather, the study attempts to examine the process variables within each programme using Social Research Techniques. Also, the part of the study that is concerned with programme effectiveness will only use Social Research Techniques to gather the data. Because of this, this next section will focus on techniques of data collection and evaluation that come under the heading of Social Research Techniques.



For a full discussion of other evaluative techniques, the reader is urged to consult Jaffee's well-developed paper.

### Section 3.5. Social Research Techniques of Evaluation

There are several different techniques for evaluating programmes that come under the broad heading of Social Research Techniques. The first major sub-division, labelled "experiments", can be defined as a procedure which randomly assigns subjects to an "experimental" (with treatment) or a "control" (without treatment) group, such that changes in the programme participants may be thought to be a function of receiving a particular treatment rather than a function of intervening influences. It should be stressed that the hallmark of true experimental procedures is random assignment to either experimental or control groups. There are, however, quasi-experimental procedures, which are similar in design, except for this random assignment. The quasi-experiment is often chosen because it is sometimes impossible to provide random assignment, or else because it is impossible to insure that control subjects will not obtain treatment from another source (Weiss and Rein, 1970; Campbell, 1970). Jaffee (1974) argues that although quasi-experiments are inferior to real experiments (because they do not enable the researcher to rule out as many competing variables), if used with some degree of caution and ingenuity, they allow the researcher to often rule out enough competing variables to make their use worthwhile.

"Survey methods" is the second broad category within the area of Social Research Techniques. Survey methods can use interview schedules, questionnaires or inventories to indicate attitudes, behaviours or behavioural changes of programme participants. Within this broad domain of survey methodology are areas that are more often referred to as "psychometric testing" and "clinical interviewing". In any event, in terms of the present study, the monitoring of treatment milieu and staff-patient relationships is done under the rubric of survey methodology. This, like quasi-experiments or experiments, can also furnish approximate causal findings. This can be done by looking at either the interaction of two or more variables (Blalock, 1972) or else by the use of comparison groups (Rose, 1971). Survey methodology, according to Jaffee, has the advantage of allowing the researcher to include a large number of variables within the same study.

The last major Social Research Technique is called the "case study approach". This method is often based on naturalistic observations. It allows the researcher to describe a programme or its phases in considerable detail. Observations made while collecting the more formal survey methodology data can be used to help explain findings that are obtained from the survey approach. This will be done in the present study. The case study approach can also be used to generate quantitative data. This, however, is not its function within the present study.

### Section 3.6. Methodological Difficulties in Social Research Techniques

In discussing methodological difficulties one faces when using social research techniques, particular emphasis will be given to those that have plagued the evaluation of alcoholism treatment. One of the major difficulties hindering the evaluation of alcoholism treatment programmes, as well as other treatment programmes, is the lack of standardized instruments (Hill and Blane, 1967; Crawford et al., 1973). The authors noted that most interview schedules are constructed so as to facilitate the collection and recording of data. This lack of standardized instruments makes it extremely difficult to compare the findings of different studies.

Another difficulty is the selection of appropriate outcome measures. Ideally, the outcome measures should be dictated by the goals of the programme. Hill and Blane (op. cit.) and Emrick (1974) have commented on the narrow perspective of most evaluative studies. With respect to alcoholism treatment evaluation, this has taken the form of concentrating on changes in drinking behaviour at the expense of other areas that could be important (Pattison, 1966).

Crawford et al. (1973) have noted that many studies evaluating alcoholism treatment lack adequate "control" groups. As mentioned before, the need for a control group, which would receive no treatment, rests on the assumption that providing such a no-treatment group allows one to say that changes in the dependent variable could be attributable to treatment being provided, rather than

to other factors. The idea behind a comparison of a treatment and a no-treatment group also assumes that, within both groups, patients will be identical in other characteristics. In situations where it is not possible to match patients, the next best alternative is to randomly assign patients to the two groups. In making a random assignment, one assumes that the likelihood of confounding variables will be equally distributed between the two groups.

Caro (1969) has noted that it is not always possible to design a study with a no-treatment group. Administrators are often, for ethical reasons, reluctant to withhold treatment services. Even if we could guarantee a no-treatment group, there is always the possibility that our "no-treatment" subjects might obtain services without the knowledge of the researcher, if the need is great enough. Weiss and Rein (1970) also argue that establishment of experimental and control groups often leads to difficulties in statistical analysis, in that the number of subjects in experimental and control groups is sometimes rather low. If more than one experimental group is used, to increase the numbers, there is always the possibility that the treatment given the experimental groups will not be identical. Additionally, one must consider the possibility of subject manipulation. Subjects might appear more in need of treatment if they feel that this will influence their being included in the treatment group. Lastly, there is the problem of patient motivation. Studies which deny treatment to the control group, without

selecting control subjects from those who apply for treatment, run the risk of arriving at erroneous conclusions. Any superiority of the experimental group over the control group could be due to the motivation of the experimental subjects to seek treatment.

Given the fallibility of the treatment versus no-treatment design, alternative designs must be considered. Caro (op. cit.) noted that Hyman et al. recommended the use of treatment groups as their own control. This is accomplished by asking the questions in relation to the pre-treatment period and then asking the same questions again in relation to the follow-up period, of the same duration as the pre-treatment period. Harrison (1971) advocated the use of comparison groups instead of control groups, for evaluating the effects of encounter groups. Unlike the strict no-treatment group, the comparison group receives some type of treatment. This corrects at least some of the problems of a no-treatment group, in that subjects do not (or at least would be less likely to) see themselves as inferior to, or radically different from, experimental group subjects.

Crawford et al. (1973) have noted that many studies evaluating alcoholism treatment lack any data about changes that occur during the treatment process, or immediately thereafter. Additionally, the authors noted that many of the studies that were reviewed lacked an adequate description of the treatment programme and/or the treatment population. Hill and Blane (1967) also comment on the fact that many studies do not detail the follow-up

procedures that were used in the research.

### Section 3.7. Political and Social Implications of Evaluation

In the previous section, we have discussed some of the methodological difficulties one encounters in attempting evaluation research. There are certain political and social (or administrative) issues which can pose problems for the researcher. Some of these will be considered in this section.

Caro (1969) noted that the programme administrator might be fearful that evaluation could show that his programme is not meeting its stated goals. If this is so, the administrator might consent to evaluation of only minor aspects of the programme. Worse still, he might block any attempts at evaluation. Conversely, an administrator might overly encourage research, if he felt that results were going to place him or his programme in a favourable light.

The administrator, as well as the staff, might be apprehensive that suggestions made by the evaluator could be incompatible with the treatment needs of clients (Kadushin, 1974). The author further notes that there is often a basic conflict between staff who are involved in patient treatment and the researcher. The treatment staff might feel that the researcher is less qualified to make recommendations regarding improvement of treatment, since, in many cases, the researcher is not also a clinician. There might also be a question as to whether or not the researcher will be allowed access to patient files, since



this can be seen as a breach of therapist-patient confidentiality. Other factors, such as a heavy caseload, might make it less likely that staff will cooperate in the evaluation (Resnick, 1974).

There is also the problem of when to report the findings. If an agency feels that results will be helpful in making administrative decisions, it might press for the findings before the researcher has had a chance to complete the entire study or to arrive at final conclusions. If one feeds back results before a project is completed, there is always the possibility that subsequent data will be biased. Obviously, one must balance the need for the agency to have the results with the need for the research to be completed with a minimum of bias.

Lastly, one must consider some of the constraints imposed by actions within the political sphere. Meld (1974) has indicated that research is sometimes undertaken because it is seen to have an underlying political utility. In other words, if a legislator is particularly interested in eliminating a programme, he might be more interested in studies which have produced "negative" findings. Conversely, those interested in maintaining a programme (particularly if there is pressure to eliminate or reduce the programme) would tend to be more interested in research likely to produce "positive" results. One should therefore be cautious in answering or responding to legislative requests for research.



### Section 3.8. Recommendations for Evaluation Research

Now that we have outlined some of the difficulties in conducting evaluative research, it would be prudent to consider some recommendations for future studies. Schuckit and Cahalan (1974) make the following recommendations:

- 1) Define treatment goals and objectives
- 2) Limit the number of questions
- 3) Measure adverse as well as beneficial effects
- 4) Try to include both retrospective and prospective measures
- 5) Try, wherever possible, to use a before, during and after design
- 6) Choose several outcome measures
- 7) Operationalise as many terms as possible, such as cure, improvement, etc.
- 8) Establish Validity and Reliability
- 9) Select a control group
- 10) Randomly assign subjects to both experimental and control groups, with at least 20 subjects in each group

There are additional recommendations for drug studies which are not listed because they are not applicable to the present research. In designing the present study and evaluating the data, we have attempted to implement several of the recommendations. A case has already been presented against the use of the control group, or no-treatment group. In the absence of a control group, we have used Harrison's (1971) recommendation of including several different treatment groups and allowing subjects to serve as their own controls. Given the absence of the control group, the last two recommendations are not applicable. While the present study does not formally measure the reliability and validity of the instruments, the pilot phase of the study (see chapter 9) was concerned with making sure that the instruments showed a fair degree

of face validity, or at least produced data that were consistent with what is known about alcoholic patients. During the course of the data analysis, the validity was further examined by comparing patient and staff responses on measures of treatment milieu to what was known about the milieu from observation. Also, the distribution of patient demographic characteristics, obtained from the interview schedule, was compared to distribution from other studies. Lastly, it is important to note that, although the present study attempts to incorporate most of the above recommendations, it should be remembered that it is not always possible to strictly adhere to the recommendations.

### Section 3.9. Summary

Chapter 3 examined both the need for evaluation and the methodological, as well as administrative, difficulties inherent in the evaluation of treatment programmes. Particular attention was placed on the difficulties of establishing quasi-experimental and experimental studies. Because of the difficulties involved in a no-treatment control group, it was decided to adopt Harrison's (1971) recommendation of having a number of treatment groups within the same study and to have subjects serve as their own controls by using a before and after design. Recommendations for future evaluative research were also included.

## CHAPTER 4

### Research Evaluating the Effectiveness of Treatment for Alcoholism

#### Section 4.1. Introduction

After considering some of the methodological problems and administrative issues involved in evaluation, we will now review some of the studies evaluating treatment for alcoholism. For the purposes of this discussion, treatment will be divided into drug therapy, group psychotherapy, <sup>behaviour therapy</sup> and new or unclassifiable approaches. This classification appears to cover most of the available treatment services. At the end of this chapter, an attempt will be made to draw conclusions concerning the effectiveness of treatment methods, based on the literature review already presented. It is important to note that, because of the volume of available evaluative research, this review is not exhaustive.

#### Section 4.2. Drug Treatment

Treatment of alcoholism using medication follows from the notion that there is some physiological or biochemical cause of alcoholism. Administration of the drug is seen as a way of eliminating or modifying the causative factor(s).

Smith et al. (1951) reported treatment which gave

patients vitamins and nutritional supplements. These authors reported that, out of five patients, one remained sober for ten months. Little information is provided regarding the other patients. Also, one questions whether any conclusions can be drawn from such a small sample.

Rogers and Pelton (1957) provided Glutamine for the treatment of patients with long histories of chronic alcoholism.

Patients found that Glutamine was helpful in decreasing their desire to drink as well as their actual drinking

behaviour. Denson and Sydiaha (1970) concluded that administering LSD to alcoholics did not achieve superior

results to treatment that only used psychotherapy. Lundquist (1970) reported successful use of Librium and

Valium during the acute stages of early withdrawal.

Since no numbers were given, it is difficult to judge the evaluation. Gross et al. (1973), in reviewing the

literature pertaining to drug treatment of acute alcohol withdrawal states, suggest the usefulness of Chlordiazepoxide and Paraldehyde in treatment. No definite conclusion

can be drawn as to the effectiveness of the drugs. Kelly et al. (1971) tested the effectiveness of vitamin B-12

compounds in the treatment of acute alcohol withdrawal. Patients were divided into a B-12 group and a "placebo"

group. Measurements consisted of subjective mood reports, blood pressure, pulse rate, reaction time, etc. The

authors concluded that the B-12 group performed significantly better on the above measures than did the "placebo"

group. Also, they reported less subjective intoxication (the feeling of being intoxicated) than did the

"placebo" group. In summary, it would appear that drug treatment is useful during the acute phase of alcohol withdrawal. Its usefulness as a continuing treatment methodology is more questionable (HEW, 1974).

#### Section 4.3. Group Psychotherapy

A considerable amount of research has been undertaken concerning the effectiveness of group psychotherapy as a treatment for alcoholism. This type of treatment usually rests on the assumption that there are psychological or psycho-social factors contributing to either the onset or the maintenance of alcoholism. Helping patients deal with difficulties in these areas is thought to be essential if patients are to stop or reduce drinking, which is seen as symptomatic of unresolved psychological or psycho-social difficulties (Kessel and Walton, 1965).

Ritson (1968) reported that 52 percent of a group of patients admitted for inpatient treatment attained abstinence. This figure, however, might be inflated, as it includes patients abstinent with intermittent lapses. He also reported that 42 percent of those patients treated as outpatients were abstinent at follow-up. The conclusion was that there was no significant difference between inpatient and outpatient treatment in a specialised unit for the treatment of alcoholism. For patients who were treated on an outpatient basis, factors associated with favourable outcome were the presence of Gamma alcoholism, mild personality disorder, a long history of alcoholism, contact with Alcoholics Anonymous, abstinence of several

days duration before first attendance at the clinic, and a good marriage. For inpatients, factors associated with favourable outcome were intact marriage, no history of arrest, age (older patients did better), no suicide attempts, acceptance by the patient of Disulfiram, attendance as an outpatient following discharge, and an indication of favourable prognosis by the staff.

Pattison et al. (1968) adopted several different criteria to measure treatment effectiveness. These included measures of social functioning, physical health, emotional health and drinking behaviour. Patients were divided into three groups: pathological drinkers; normal drinkers; and abstainers. The authors found that all three groups demonstrated improvement in vocational functioning, physical health, and interpersonal functioning, but that the abstainers and normal drinkers showed relatively greater improvement on the vocational functioning and interpersonal functioning measures. The authors found that demographic characteristics, such as age, type of vocation, contact with AA, etc., were not significantly associated with improvements in outcome criteria. Wolf and Holland (1964) obtained similar results to those of the previous authors. Using a mailed questionnaire, the authors found no significant association between abstinence and age, employment functioning or social class. There was a tendency, however, for older patients to do better than younger patients, and for patients with better social and employment functioning to do better than patients with lower social and employment functioning.



Walton et al. (1966) studied eighty-three patients referred to the Alcoholism Unit at the Royal Edinburgh Hospital. The authors found that results obtained at six-month follow-up were highly similar to those obtained at eighteen months. Patients who did best in treatment were moderately self-critical, with patients who were self-punitive being much less able to benefit from treatment. The findings of Ritson (1971) did not confirm the findings from the previous study, although Ritson did note that outpatients with a neurosis or mild personality disorder had a tendency to have a better prognosis at follow-up. He also noted that results obtained at six months were highly predictive of results obtained at one year. Moore and Ramseur (1960) found that a passive aggressive dependent group of patients gained more from hospitalisation than did a sociopathic group of patients.

Rohan et al. (1969) examined the changes in patients' personalities during the time of inpatient treatment, using the MMPI. Subjects showed changes toward less depression, increased self-confidence, greater control, and less impulsiveness, as well as less preoccupation with symptomatology. While interesting, the utility of this research is rather limited, as it made no attempt to relate change during hospitalisation to any change during the follow-up period. Moreover, the findings might be confounded by the "hello and goodbye" effect (Meltzoff and Kornreich, 1970). In other words, patients might have tended to report worse functioning at admission because of their desire to be seen as needful of treatment



and better functioning at discharge, because of their desire to please staff. Gibson and Becker (1973) looked at changes in patients' self-rated depression during treatment for alcoholism. The authors concluded that during the first fourteen days of treatment, changes in depression could be a function of improvement in the somatic state of the patient following detoxification. This improvement in the somatic state of the patient might, according to the authors, give rise to a false sense of elation. While changes during treatment are important, it would seem that we would have to regard any change measured during the early phase of treatment with extreme caution, given the high probability of invalid patient perceptions, during the beginning of treatment.

Edwards (1970) rated patients on a social stability index and on a three-point drinking index, in addition to demographic and personality variables. This author concluded that outpatients fared better than inpatients with respect to overall outcome. This would seem to contradict the findings of Ritson, who noted no significant difference between inpatient and outpatient treatment. Edwards also found a positive correlation between treatment outcome and social stability. This agrees with findings already mentioned, which relate treatment success to positive social functioning.

Kammier et al. (1973) undertook a study to examine the events in the treatment process that patients thought to be most important. Overall, patients rated lectures as most important. This was followed by responses

indicating the importance of gaining some type of emotional insight. The responses of patients who returned to drinking showed a considerable lack of feeling and imagination. Their answers also omitted responses indicating that they had taken any responsibility for their own recovery.

Van Dijk and Van Dijk-Koffeman (1973) evaluated a treatment programme combining occupational therapy, group therapy and drug treatment. Patients were rated on their drinking behaviour, physiological functioning, social functioning and psychological functioning. The authors reported 22.5 percent of the patients were able to become abstinent and 49 percent were able to show some improvement. With respect to the patients' physical functioning, 20.5 percent showed an improvement, 45 percent showed no change and 24.5 percent showed a decrease in physical functioning. Forty-six percent of the patients showed improvement in psychological functioning and 24.5 percent showed no change, while 23 percent showed a deterioration. Those in the abstinent group had the greatest proportion of patients who showed improvement in the above areas. With respect to elements of social functioning (i.e., work, family, housing, etc.) the greatest number of patients (near to 50 percent) showed no change. Approximately 25 percent showed an improvement in social functioning, while between 15 and 20 percent showed a deterioration. When all the outcome criteria were pooled, 56.8 percent of the patients made some improvement, 11.8 percent made no change and 31.8 percent showed a deterioration. The authors found that early discharge was indicative of

favourable prognosis, as was continued contact after discharge. On the whole, looking at outcome criteria separately, the results would seem to agree with Gillis and Keet (1969), who noted that the majority of patients showed little change in either direction after treatment.

Jacobson and Silfverskiold (1973) evaluated the effectiveness of hypnotherapy, as compared to a control group given supportive psychotherapy. These authors used various measures of observable behaviour as indicators of treatment effectiveness. They found no significant difference between the experimental group and the control group.

Freeman and Hopwood (1968) evaluated a treatment programme consisting of occupational and recreational therapy with group discussion. Individual interviews could be arranged on request for patients who felt they needed them. Fourteen patients were rated as abstinent, nine were rated as abstinent with some lapses, seventy-three were rated as unchanged, while four had died. Treatment was conducted in a non-specialized setting within a general psychiatric ward.

Vallance (1965) evaluated the treatment programme on a psychiatric admission ward of a general hospital. This was not a specialized treatment programme. He found that over 75 percent of the patients resumed drinking in less than six months, with most of these patients resuming drinking within three months of discharge. Patients' overall drinking behaviour was rated over a two-year follow-up period; 41.2 percent of the patients showed

improvement, 39.7 percent showed no change and 19.1 percent showed a deterioration. Only 16.2 percent showed an improvement in their work record, 55.9 percent showed no change and 27.9 percent showed a deterioration. Similar figures were reported for social adjustment and overall adjustment. Similarly poor results were reported by Moore and Ramseur (1960) in an open ward setting.

Pokorny et al. (1973) reported on the effectiveness of an extended aftercare programme for alcoholics. Fifty-three percent of the men who attended eight or more sessions attained total abstinence. Only 15 percent of the other patients were able to reach this goal. Work and social adjustment were also superior for those patients who attended the outpatient facility following discharge. The authors concluded that inpatient treatment was merely the first phase of a total treatment programme.

Pheffer and Berger (1957) noted considerable success with a programme of treatment linked to the patient maintaining his job (i.e., patients must attend treatment in order to retain their job). Patients were rated on medical history, demographic information, psychiatric evaluation, drinking patterns, social functioning and vocational performance. Data were also obtained from supervisors and company personnel officers. Only sixty alcoholics were able to be contacted during the follow-up period. Forty-eight patients of the sixty were able to be classified as abstinent, seven were classed as having shown moderate improvement, and the remainder were classed as showing no change or deterioration. Patients who were classed as

abstinent or moderately improved were also judged to have made improvements in their work performance and social functioning, with the abstinent patients making a greater improvement than those who showed a moderate improvement in total outcome. On the surface, the treatment programme appeared to have been highly successful. Yet, with only sixty patients out of one hundred being located for follow-up, there is a strong possibility that the researchers might have a biased sample favouring those patients who gained most from treatment. Nevertheless, the results are encouraging enough to speculate that this treatment method offers considerable potential.

Lastly, Leach (1973), after reviewing some of the studies evaluating Alcoholics Anonymous as a treatment modality, concludes that research has shown AA to be effective in helping alcoholics to maintain their sobriety.

#### Section 4.4. Behaviour Therapy

The treatment methods (either through aversive conditioning or reduction of anxiety) reviewed in this section differ from group psychotherapy in that they do not concentrate on helping the patient to deal with psychological or psycho-social difficulties but are mainly geared toward the removal of alcoholic behaviour.

Mann and Piorkowski (1973) have noted that systematic desensitization, a technique in which the anxiety surrounding the circumstances precipitating the drinking behaviour is reduced, has been suggested as a useful technique in the elimination of alcoholic behaviour. The authors unfortunately did not include a systematic evaluation.

Lysloff (1972) evaluated the effectiveness of Metronidazole in the treatment of alcoholism. This drug is supposed to produce a noxious reaction when the patient has ingested alcohol, similar to that of Antabuse. Of the sixty-six patients studied, forty were labelled as "failed" by virtue of their inability to remain abstinent. Failures were equally divided between the experimental and control groups (the control group receiving a placebo). The authors concluded that the drug in question was not superior to other treatment modalities based on the evidence obtained in the research.

Emrick (1975), after reviewing several comparative studies evaluating the effectiveness of different types of alcoholism treatment, reports conflicting results with respect to behaviour therapy. He noted that Ends and Page found behaviour therapy to be less effective than other types of psychotherapeutic approaches but also noted that Sobel and Sobel found behaviour therapy to be superior to other approaches, such as group therapy.

Skala (1968) used aversion conditioning by emetic drugs to treat alcoholics. He randomly assigned patients to two groups, both of which received group psychotherapy. The group receiving both aversion therapy and group psychotherapy did slightly better than the group who only received psychotherapy. Similar favourable results using a combination of behaviour therapy and "suggestive" group therapy were reported by Stojiljkovic (1968).



#### Section 4.5. Newer Approaches

This section will briefly discuss some of the newer treatment approaches that have been reported. The HEW report (1974) has noted very little development with respect to drug treatment except that Kline has used lithium to treat the manic-depressive reactions of some alcoholics admitted for detoxification. While the use of lithium to treat depressive reactions is not new, Kline found that the lithium treatment reduced the number of subsequent detoxifications required by these patients. Unfortunately, no other details regarding evaluation were given in the HEW report.

Several interesting developments have been reported in the area of psychotherapeutic treatment. Paredes and Cornelison, Jr. (1968) reported on the development of self-confrontation techniques, such as motion picture filming. Patients were given small amounts of alcohol while they were in the hospital and their behaviour was filmed under these circumstances. Treatment consisted of showing patients their films in sessions scheduled twice weekly. Patients participated in six to twelve of these sessions. Patients were discharged and followed up at one to three-week intervals. The authors reported that the filmed experiences appeared to be able to keep the patients in a meaningful treatment relationship, which had not been the case in previous attempts at treatment. Paredes et al. (1969) conducted a study that used similar treatment techniques with female alcoholics. Patients were divided into three groups. The first group saw video



recordings of themselves at bi-weekly sessions. The second group saw a film of a standard psychiatric interview with a female volunteer and the third group had no visual experience. Subjects were asked to complete a number of psychological tests measuring self-acceptance, patient/interviewer relationships and acceptance of others. Patients were asked to complete the forms before treatment and six weeks later. Different scores (post-test minus pretest) were computed for each patient. A one-way analysis of variance, comparing the mean difference for each group, did not establish the superiority of the first group over the other two with respect to the amount of apparent change. One can maintain that self-confrontation techniques using audiovisual methods are not superior to other treatment methods in producing positive change for female alcoholics. One might argue that differences between the three groups might be masked by the use of raw difference scores in that the magnitude of the difference is highly dependent on the initial score.

Weiner (1967) and Blume et al. (1968) have reported on the usefulness of psychodrama as a treatment technique for alcoholics. Unfortunately, no evaluative information is given. Meeks and Kelly (1970) reported on the use of family therapy with five families of alcoholics. Therapy was geared toward helping the family members clarify interaction within the family and, in so doing, to aid communication. Families were seen between ten and twelve months. Two of the five patients were able to remain abstinent during the course of treatment and the other three

showed a substantial reduction in drinking over the length of treatment. Patients also reported improvement in family communication and interaction.

Ottenberg (1974)<sup>1</sup> has reported on the treatment of alcoholics and addicts in the same therapeutic community. Twenty-four percent of the alcoholics were rated as good (abstinent for at least six months and fully employed) in the 1970 sample and 22 percent were similarly rated in the 1971 sample, for those who remained in treatment. Thirty-one percent of the 1970 sample and 20 percent of the 1971 sample were rated as showing improvement. Normally, these figures would not be very encouraging, but this alcoholic population tended to comprise deteriorated patients of the "Skid Row" variety, for whom the prognosis is usually very poor. Dichter et al. (1971) reported on the inclusion of marathon encounter groups into the treatment programme of the above institution. The authors located eighty-two of the one hundred patients who participated in marathon therapy, and of these, 19 percent were classed as successful and 28 percent as partially successful. Again, the results are encouraging, considering the population included a number of "Skid Row" alcoholics. Similarly encouraging preliminary findings were reported by Judge (1971), Van Stone and Gilbert (1972) and Davies (1972). All these programmes stressed a high level of confrontation and expression of aggression. The value of these dimensions of treatment milieu will be discussed later on.

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<sup>1</sup>See also Ottenberg and Rosen(1971).

#### Section 4.6. Conclusions about Treatment and Summary

From the studies presented in this chapter, it would appear that treatment for alcoholism does have some positive effect. Many of the studies indicated that patients improved in at least one area of functioning, following treatment. Given this, Emrick (1975) has concluded that many patients are better off for being in treatment than not. The second broad conclusion is that there appears to be little difference in the effectiveness of different types of treatment, except to say that patients in specialized treatment programmes appear to do better than patients in non-specialized treatment programmes. Whether the superiority of specialized treatment programmes is due to the possibility that specialized treatment programmes are more selective in the type of patients admitted for treatment is difficult to say. Lastly, on the basis of the evidence presented, it does not appear possible to isolate those patient characteristics that will allow us to predict treatment outcome with any consistency.

Looking at specific types of treatment, the evidence does not seem to support that either drug treatment or behaviour therapy shows sufficient merit to warrant its use as an exclusive treatment modality. Both would seem to be useful in conjunction with some type of group therapy or individual counseling approach. It should be noted, however, that drug treatment does seem to be particularly useful in helping the patient through withdrawal symptoms during the early stages of treatment.

Looking at the studies in methodological terms, one can see a number of deficiencies, identical to those noted in the last chapter. Most studies lack a control group. One might argue that it is unrealistic to insist on a control group which does not receive treatment and that alternative designs should be tried which include several different treatment programmes compared against each other. The overwhelming majority of the studies do not satisfy this requirement either.

Secondly, it is difficult in many of the studies to discover even a minimal description of the treatment offered. Also, some studies tended to rate patients as "improved", "unchanged" or "deteriorated", without adequately defining these nebulous terms. Thirdly, many of the studies appeared to be nothing more than anecdotal accounts of treatment with the suggestion that treatment "appeared" to be effective. These studies did not include even the most rudimentary statistical analysis, so that it was difficult to appraise the effectiveness of treatment. In many of the studies, the follow-up procedure was not standardised, so that patients who might have been followed up after a very short time could be included with those patients followed up after a longer time. In certain instances, follow-up results were reported for fewer than 50 percent of the patients. One wonders whether this might have introduced the bias of a self-selected population. Finally, it would appear that many of the studies focused on abstinence as the sole criterion of treatment effectiveness. Other areas of improvement were considered

only as they related to changes in drinking behaviour. This has tended to make for a very restricted view concerning the success of treatment; Pattison (1966) has noted that a patient's mental health and social functioning might undergo an improvement without the patient achieving abstinence.

## CHAPTER 5

### Staff-Patient Relationships and Treatment Outcome

#### Section 5.1. Introduction

Evaluation of alcoholism treatment programmes has been conceptualised as if treatment were a dichotomous variable; that is, treatment has been seen as either absent or present. It is almost as if treatment were seen as being homogeneous (Pattison, 1969), in that we have failed to examine any of the components of the treatment process (called process variables) that might be related to treatment outcome. One important component of the treatment process is the way in which staff (or therapists) relate to patients. This chapter will examine some of the research relating treatment outcome to the way in which staff relate to patients. This chapter will also consider some of the ways in which staff-patient relationships can be monitored. Most of the research discussed in this chapter and the next has not been based on alcoholism treatment programmes. We are assuming, however, that the findings are at least partially applicable to alcoholism treatment. In so doing, it is also being assumed that treatment needs of alcoholic patients are similar to those of other psychiatric patients.

One of the goals of the present study is to move

past the limitations imposed by considering the treatment process as homogeneous, so as to design a study that allows us to examine the effects of certain aspects of the treatment process. Given the possible importance of staff-patient relationships, we shall design and implement (in subsequent chapters) an evaluation of alcoholism treatment that allows us to isolate particular aspects of staff-patient relationships that are associated with treatment outcome.

### Section 5.2. The Importance of Therapist Qualities in Staff-Patient Relationships

Rogers (1957) has proposed that, if a therapist is to be successful, he must be warm, accepting, empathetic and self-disclosing (willing to say how he feels toward the patient or willing to talk about himself when appropriate) in his relationship with patients. According to Rogers (1961), therapists who show the above qualities in their relationship to patients create conditions or a climate that is conducive to promoting patient growth and change. Whether or not the patient actually does grow depends on the patient's ability to profit from such a relationship. Such a viewpoint is consistent with Strupp and Bergin (1969) who have noted that the therapist or the treatment staff must create conditions that will make the patient more amenable to behaviour change but, at the same time, use or develop techniques that will bring about this change. In other words, while the variables of empathy, warmth, acceptance and self-disclosure are important aspects of the therapeutic relationship, the therapist



must also help the patient profit from such a relationship, before the patient can show growth. In this context, the therapist-offered qualities of empathy, warmth, acceptance and self-disclosure are seen as important but not exclusively so.

### Section 5.3. The Measurement of Therapist-Offered Qualities

Given that the therapist-offered qualities of empathy, warmth, acceptance and self-disclosure are possible important determinants of treatment outcome, it would be prudent to consider several ways in which these variables can be measured. This will allow one to place research linking these variables to treatment outcome (which will be discussed in the next section) in a better perspective.

Burck et al. (1973) extensively reviewed the problems involved in measuring staff-patient relationships. The authors divide measurement approaches into two categories: direct and indirect approaches. The indirect approach measures staff-patient relationships through the eyes of the participants (patients and staff) and is usually based on some type of self-report inventory. The direct approach, on the other hand, uses observational methods or content analysis to assess how the staff actually relate to patients. Data can be gathered under the direct approach by structured observation checklists, typed verbatim transcripts, tape recordings, movies or video-tape systems.

The authors enumerate four basic techniques for the direct approach. The first is called the Critical Incident Technique, in which case the researcher notes all

the incidents that would appear to be directly related to behaviour changes during the course of staff-patient interviews. There are four main difficulties with this approach. These are: (1) it provides a sample of rarely occurring behaviour, thus making it hard to arrive at any generalisation; (2) because these behaviours may occur infrequently, it is hard to develop meaningful categories of recurring behaviour; (3) because of the selective way in which persons may rate critical behaviour, inter-observer agreement is very low; (4) the procedure is laborious and time consuming.

A second direct approach, according to Burck et al. (1973) is Content Analysis or Interactional Analysis. Content Analysis, in this instance, is concerned with the quantitative description of communication between patient and therapist as an indicator of certain therapist qualities. A problem with this technique is that one must decide on the best unit of analysis. Does one analyse words, phrases, sentences, paragraphs, etc.? Does analysis of communication fragments rob or destroy the essence of the total communication? There are, unfortunately, no rules concerning these decisions and one must approach this arbitrarily. Content Analysis does have the advantage, however, of being objective, when done properly.

A third type of direct approach centres on some means of observation in which the coding of staff behaviour toward patients is confined to directly observable units of behaviour. There seems to be some attractiveness in this approach in that it makes it easier to describe

characteristics of the therapist in terms of things directly observable rather than in terms of hypothetical constructs.

Lastly, the authors note the development of the Interpersonal Process Recall Technique, in which the patient and therapist are asked to relive the experience of the interview during a video-taped session under the guidance of a specially trained interviewer. This technique has the advantages of being able to focus on non-verbal behaviour and communication.

Turning now to indirect approaches, Burck et al. (op. cit.) note two main methods of assessing how staff relate to patients. The first method is to assess the relationship through examination of the case-notes. The problem with case-notes is that they are highly subjective. Secondly, one can administer a theoretical orientation scale to the therapist. This approach assumes that a therapist behaves toward his patient in ways that are congruent with his theoretical orientation; i.e., a psychoanalytically oriented therapist would be more likely not to share personal experiences with a patient. There might be several instances, however, where one's behaviour with patients departs from what would be predicted on the basis of theoretical orientation, so that this method may not be the best approach. A related approach is to ask the therapist via a questionnaire to assess how he relates to patients. Burck et al. (1973) also consider supervisory or peer rating as indirect methodology. However, many peer ratings are based on

observation or transcripts of interviews so that this approach would be more similar to the direct than to the indirect approach. Nevertheless, the indirect approach would seem to have two main disadvantages. The first disadvantage is that the data often do not correlate with actual behaviour. The second disadvantage is that such assessment approaches often lack validation. However, the indirect approach does have a number of advantages in terms of reproducibility, speed, lack of cost, etc. The studies cited in the next section will include both direct and indirect approaches to assessing staff-patient relationships.

#### Section 5.4. Therapist Qualities and Treatment Outcome

This section will review some of the literature concerning the relationship between therapist qualities of empathy, warmth, acceptance and self-disclosure in their relationship to patients and treatment outcome. Traux et al. (1971) reported the development of scales which measured the degree to which therapists exhibited empathy, warmth, acceptance and self-disclosure with their patients. In this study, the authors found a positive relationship between the level of these variables shown to patients during the course of therapy and therapeutic outcome as measured by psychometric tests, Q-sorts and the number of days spent out of the hospital for institutionalized mental patients. Additionally, it was noted that patients who received low levels of these therapist qualities showed scores indicative of greater pathology than did

patients who were treated by therapists who were rated high in these areas. Traux and Wittmer (1971) found that patients seen by therapists who were judged to relate to patients with a high degree of accurate empathy showed more healthy scores on outcome measures than did patients who were seen by therapists judged as relating to clients with a low degree of accurate empathy.

Friel et al. (1971) have attempted to relate empathy, warmth, acceptance and self-disclosure to other factors thought to be important in therapy, such as confrontation (the extent to which a person directly divulges his feelings concerning another person to whom he is relating) and immediacy (the extent to which these feelings are communicated to the other person at the time they are felt) and relationships to significant others. Forty-five therapists were rated on the amount of empathy, warmth, acceptance and self-disclosure they showed toward patients. The results indicated that those therapists who were rated as having low levels of empathy, warmth, acceptance and self-disclosure were also rated as eliciting in patients more references to less-than-significant others, infrequent confrontation and low levels of immediacy. Therapists who were rated as showing higher levels of the above variables elicited in patients more frequent confrontation and higher levels of immediacy and their patients were also more inclined to discuss present problems. These patients were rated as being able to look more honestly at themselves. In summary, not only are acceptance, empathy, warmth and self-disclosure important

because of their relationship to successful treatment outcome, but because these therapist qualities, when showed by therapists to patients, are also related to other aspects of treatment, such as confrontation and immediacy, which have been considered by some authors (Mintz, 1971; Schutz, 1967) to be important determinants of treatment success.

It becomes interesting to examine the interrelationship (if any) between the above four qualities. Muehlberg et al. (1969) hypothesized that empathy, warmth, acceptance and self-disclosure are best seen as manifestations of one underlying quality exhibited by the therapist, rather than four separate characteristics, and that these characteristics, as measured by observer ratings, would be substantially intercorrelated. Furthermore, the authors felt that a substantial intercorrelation is possibly indicative of at least one underlying factor that should account for most of the variance. The authors failed to recognize, however, that a substantial intercorrelation could also mean that the terms/concepts used were synonymous, or at least not properly independent of each other. The above intercorrelations were subjected to a centroid factor analysis, in order to test the possibility of one underlying factor. The factor analysis yielded one factor that accounted for 89 percent of the variance. Similar results were obtained from a group of therapists rated as showing low levels of empathy, warmth, etc., with patients. The authors, therefore, concluded that therapists who scored high on this one factor, which was called



a "nice guy" factor, should score high on all the underlying qualities (such as empathy, warmth, etc.) and vice versa. In the light of this research, we must accept the possibility that therapist qualities of empathy, warmth, acceptance and self-disclosure are not independent, but interrelated.

Very little work has been done attempting to evaluate the effects of therapist-offered empathy, warmth, acceptance and self-disclosure on the treatment of alcoholics, apart from Wolf (1970), who has suggested that the level of therapist functioning as measured by empathy, non-possessive warmth, genuineness, concreteness, potency, self-disclosure and immediacy was related to treatment outcome with alcoholics. In light of the evidence already presented for other treatment populations, linking empathy, warmth, acceptance and self-disclosure as shown by the therapist to positive treatment outcome, it would seem justifiable and prudent to see whether the same relationship holds for a population of alcoholics. Work in this area follows from the contention of Mayer and Myerson (1971), who note that changes in drinking behaviour are related to whether or not an alcoholic can establish a positive treatment relationship with the therapist and the assumption that ability to establish such a relationship is as much a reflection of the therapist's qualities as of the patient's characteristics. Given the possible interrelationship of the therapist-offered qualities, the present research will focus on individual qualities as well as factor analysed dimensions.



### Section 5.5. Summary

This chapter noted the importance of examining components of the treatment process. It then moved to consider the way in which treatment staff related to patients as measured by the amount of empathy, warmth, acceptance and self-disclosure they showed in their relationship to patients, as one component of the treatment process. This area of investigation followed from Rogers' contention that the above therapist qualities are necessary, if one is to form a successful therapeutic relationship with one's patients.

The chapter then went on to discuss ways in which we can measure empathy, warmth, acceptance and self-disclosure in staff-patient relationships. Advantages and disadvantages of several methods were noted. It would seem that indirect approaches (assessing the relationship from the therapist or patient reports) offer the advantage of reproducibility, speed, ease and lack of cost, although the techniques are subject to possible response bias and lack of validity.

Lastly, some of the literature was reviewed concerning the relationship between therapist-offered empathy, warmth, acceptance and self-disclosure and treatment outcome. It was shown that patients seen by therapists showing a greater degree of the above qualities did better than patients seen by therapists who showed a lesser degree of these qualities. Given this conclusion, it seems prudent to expand this type of research to alcoholism treatment programmes.

## CHAPTER 6

### Treatment Milieu and Treatment Outcome

#### Section 6.1. Introduction

Another possibly important aspect of the treatment process, according to Moos (1973, 1974) is the treatment milieu or the treatment atmosphere. For discussion purposes, these terms will be used interchangeably. The present chapter is similar to the previous one, except that the literature review will focus mainly on studies that have developed techniques for assessing psychiatric milieu. This reflects the fact that there has been relatively little work done relating treatment milieu to treatment outcome, especially in the case of alcoholism treatment. In this context, the present study has two goals. In subsequent chapters, we will be concerned with the design, implementation and analysis of a study permitting us to assess the milieu or atmosphere within alcoholism treatment. Once the assessment has been completed, the study will then attempt to relate treatment milieu to treatment outcome, so that we might gain a better understanding of the important aspects underlying the treatment process.

## Section 6.2. The Importance of Treatment Milieu

Moos (1974) has noted that human behaviour is directly related to the setting in which it occurs. Sideman and Moos (1973) extend this notion still further; not only is behaviour inseparable from the context in which it occurs, but the context is of primary importance because it may allow certain behaviours to emerge or develop which are seen to be therapeutic. This would imply that we can achieve certain desired treatment effects by specifically creating certain treatment environments. This assumes that ward regimes and atmospheres can be consciously constructed. While it is not the purpose of the present research to construct specific treatment environments, we will, at the conclusion of the thesis, make certain treatment recommendations based on the ability of the study to isolate those aspects of the treatment milieu that are related to favourable or unfavourable treatment outcome. Given the possible association between milieu and behaviour, it would seem prudent to incorporate this aspect of the treatment process into the present study. Additional evidence will be cited later in this chapter, linking treatment milieu to treatment outcome, thus further establishing the importance of the treatment milieu.

## Section 6.3. Types of Milieu Assessment

Moos (1974) has noted six possible types of milieu assessment. Milieux can be assessed according to their: (1) physical dimensions; (2) behavioural settings;

(3) organisational structure; (4) collective behavioural and personality characteristics of patients and staff; (5) psycho-social and organisational climates; (6) variables that reinforce or maintain the environment in its present state. Most of the work done to date attempts to define atmosphere by measuring dimensions or facets of psycho-social and organisational climate, with the greatest emphasis resting on the psycho-social climate as the preferred type of milieu assessment. Since there has been almost no work done which has assessed the climate of alcoholism treatment programmes, it was decided to use the psycho-social approach to measure alcoholism treatment milieu, as many of the difficulties inherent in this method have already been dealt with in connection with milieu assessment in other psychiatric settings.

Within the area of psycho-social assessment, there are two main ways to assess the milieu. The first method centres on naturalistic observation of the treatment setting, while the second method involves administering paper-and-pencil inventories designed to measure the treatment atmosphere. Moos and Schwartz (1972) note a general movement from observational techniques toward the more quantifiable paper-and-pencil techniques. Perhaps the movement toward the latter method is due to the relative ease in which the data can be collected.

#### Section 6.4. Research Assessing Milieux Using Observational Techniques

Since the present study concentrates on paper-and-pencil techniques for evaluating treatment milieux, only

a brief discussion of observational methods will be provided. Goffman (1961), posing as a physical education instructor in a mental hospital, spent time observing the milieu of the institution. He found that there was a well-defined system of unwritten norms governing how patients and staff were to act as well as interact. He proposed that two subcultures exist--one for patients and one for staff--and that there is little communications between them on an effective level. Rapaport (1960) conducted a study of a therapeutic community in a mental hospital. He showed that the programme partially fulfilled its goals, in that it changed patients' working and social behaviour, but that these changes did not always help patients in their adaptation after discharge.

One also encounters reports from former mental patients who have recovered (Barnes and Berke, 1972). Illuminating as they might be, their low level of objectivity would appear to present problems in data interpretation and thus detract from their usefulness as research data. The main disadvantage of observational techniques is that it takes a considerable amount of time to collect enough data. Also, most observational studies necessitate a considerable amount of staff cooperation and possible inconvenience, in that the researcher must be present in the programme for a considerable amount of time. Lastly, observational studies face the risk of being biased by the researcher failing to record important behaviour or patient-staff interactions. Because of the limitations of observational techniques, it was decided that the

present study would assess the treatment atmosphere using paper-and-pencil techniques, which will be supplemented by data gained from informal observations (observations made while collecting other data) of the treatment programmes.

#### Section 6.5. Research Assessing Milieux Using Paper-and-Pencil Techniques

Given that the present study will use paper-and-pencil techniques to assess treatment atmosphere, it would seem appropriate to review some of the literature reporting on developments in this area. Moos and Houts (1968) and Moos (1973, 1974) have reported on the development of the Ward Atmosphere Scale (WAS). Their work and the work of others reported in this section, is based on the assumption that the collective perceptions of patients or staff regarding the milieu of their treatment programmes is an adequate description of the milieu within their treatment programmes. The WAS measures ten areas of perceived atmosphere. These are: Involvement, Support, Spontaneity, Autonomy, Practical Orientation, Personal Problem Orientation, Anger and Aggression, Order and Organization, Program Clarity and Staff Control. A more detailed description of the test can be found in chapter 9. The WAS has been used in the United States (Moos, 1974) and the United Kingdom (Moos, 1972a). Norms have been established for both cultures using the standard form. The above research has shown that staff in American programmes tend to perceive their programmes as more active



and involving, while British staff tend to perceive programmes as leaving patients more to their own devices. Norms have not been established cross-culturally for the short form (see chapter 9) of the WAS.

Moos and Houts (1968) found that the WAS was able to differentiate between several wards at the Veterans Administration Hospitals. Kish et al. (1971a) used the WAS to successfully compare the staff's milieu perceptions in five different treatment programmes. Kish et al. (1971b) used the instrument to compare the milieu perceptions of patients thought to be externally or internally oriented with respect to Rotter's I-E (Internal-External) scale (1966). Van Stone and Gilbert (1972) have used the WAS to assess the treatment atmosphere in an alcoholism and drug treatment programme.

Ellsworth and Maroney (1972) reported on the development of the patient Perception of the Ward (POW) scale to assess the atmosphere of psychiatric wards. The test was developed by factor analysing a pool of items taken from various sources. Five factors that accounted for 40 per cent of the variance were: Inaccessible Staff; Involvement; Ward Management; Satisfaction with the Ward and Expectation for Patient Autonomy. Graham et al. (1971) gave the POW test to 410 patients, thirty days after admission in a short-term psychiatric hospital. Factor analysis of patient responses yielded the following factors: Staff Receptiveness; Staff Authoritarianism; Interesting Ward; Patient Participation; Staff-Patient Interaction; Patient Responsibility; Staff Commitment and



Interest and Patient-Staff Communication. The authors have suggested scales for each of the eight factors which included items that loaded .30 or higher on that factor.

Graham et al. (1971b) report on the use of the Ward Evaluation Scale (WES) in a factor analytic study. The WES was originally developed to assess milieu from the patient's perspective. In the original format, items were grouped into three subscales: Physical Facilities; Patient Management and Discipline; and Service. There was also a total score. Graham et al. (op. cit.) noted that one possible weakness of the WES was that items were rationally grouped (on a priori assumptions) rather than empirically grouped. In order to correct this, WES responses were intercorrelated and subjected to a principal components factor analysis. The results yielded six factors (Staff Interest in Patients, Cleanliness of Ward, Absence of Disturbing Noises on the Ward, Staff Permissiveness and Sensitivity, Patient Comfort, and Adequacy of Services) which could be developed into subscales, by including those items that loaded .30 or above for at least one of the factors.

Spiegel and Younger (1972) reported on the development of the Ward Climate Inventory (WCI). The WCI consists of twenty-three items which patients or staff respond to indicating levels of agreement or disagreement. A principal components analysis yielded three possible subscales: Personnel Concern for Patients; Patient Concern for Patients; and Ward Morale. The brevity of the instrument, while initially attractive, might work to its

disadvantage, in that three subscales might collapse data to the point of not gaining an accurate perception of important dimensions underlying the treatment milieu. In other words, if one used this instrument, one might be left with perceptions that are too global to allow for a detailed analysis of specific aspects of the treatment milieu.

None of the above instruments has been developed with the specific purpose of assessing milieux of alcoholism treatment programmes. Pisani (1969) has developed a thirty-item inventory which purports to measure the patient's perception of an inpatient treatment programme. In this instrument, the patient is asked to respond to each statement on a five-point scale indicating various levels of agreement and disagreement. The instrument has the major disadvantage of yielding only a total score. Since there are no subscales, it would be difficult to use the instrument to assess multiple aspects of the treatment milieu, which is a primary concern of the present study.

The major disadvantage of most of the above inventories has been the lack of extensive use. The formation of subscales has usually been based on one or two factor analytic studies. Before enumerating the factors and corresponding subscales, it would seem necessary to use the instrument in a number of different settings, in order to ferret out which factors occur most often. Subscales could then be developed from these more frequently occurring factors. The advantage of the WAS is that it has

been used in several different settings (Moos, 1974), as well as being applicable to British treatment programmes (Moos, 1972a).

Evidence has been reported which suggests that patients and staff hold different perceptions about the atmosphere in treatment programmes. Moos (1973) noted that both American and British norms, for the standard form of the WAS, showed that patients scored somewhat lower on most of the ten subscales than did staff. Similar findings were reported by Moos (1973) for an American sample, using a shortened version of the WAS. Graham et al. (1971c) gave the Ward Evaluation Scale to 163 staff members in a psychiatric hospital. Factor analysis yielded five factors (Considerate Staff, Comfortable Ward, Accessible Staff, Patient Responsibility and General Dissatisfaction) which were somewhat different from those previously noted as emerging from patient populations. Allon et al. (1971) undertook similar work with the Characteristics of Treatment Environment Scale. The authors concluded that, while patients and staff might share commonalities in perception of treatment atmosphere, there are differences between the two groups. In summary, it would appear that patients and staff in psychiatric treatment programmes do perceive treatment milieu some what differently. This would tend to support Goffman's (1961) hypothesis of separate patient and staff subcultures.

Almost no work has been done extending this type of research into alcoholism treatment programmes, although Chafetz (1967) and Blum and Blum (1972) note the potential importance of the treatment milieu. The present study will therefore examine milieu perceptions of both patients and staff.

Moos (1974) has noted that subjects' milieu perceptions are generally independent of demographic characteristics, such as age, sex, etc. Ellsworth et al. (1971) found that patient age, chronicity and marital status had an effect on milieu perceptions. On wards which had older patients and fewer staff, staff were perceived by patients as high in motivation, while staff perceived themselves as high in involvement. Staff were perceived as dominant in those wards where there was a high proportion of schizophrenic patients and unmarried patients. This points to what is perhaps the major disadvantage of assessing milieux from subjects' perception; that is, their milieu perception might be a function of personal characteristics (James and Jones, 1974). It is also possible that staff milieu perception is a function of attitudes the staff hold toward patients. This could be particularly important in the case of alcoholism treatment milieux, since past research (Riley, Jr. and Marden, 1946, Sterne and Pittman, 1965, Bailey, 1970) has shown that treatment staff see the alcoholic as being a difficult patient to treat, as presenting possible disruption to the treatment regime, and as having a particularly poor prognosis. Under these circumstances, staff might see the treatment atmosphere as custodial or being oriented toward patient control. Because of the possibility of confounding variables biasing one's perception, the researcher should, wherever possible, briefly examine the subjects' responses to see if they agree with what is already known about the milieu of the treatment programme.

Section 6.6. Research Assessing the  
Relationship Between Treatment  
Milieu and Treatment Outcome

There has been some work (although not with alcoholic treatment programmes) that has attempted to relate subjects' perception of treatment milieu with treatment outcome. Moos and Schwartz (1972) have noted that wards with high dropout rates were perceived by patients as being low on Personal Problem Orientation and on Order and Organization. Staff on these wards perceived more emphasis on Anger and Aggression and less emphasis on the Involvement, Support, and Program Clarity subscales. Spiegel and Younger (1972) noted that wards with high dropout rates were characterised by low morale and little concern for patients. One should pay careful attention to those dimensions of milieu associated with low dropout rates, as continuance in treatment is associated with favourable treatment outcome for alcoholics (Ritson, 1969). One must accept the importance of the above findings with some caution, in that dropout rates primarily refer to inpatient treatment while continued treatment contact (especially in relation to alcoholism treatment programmes) usually refers to treatment offered on an outpatient basis, after discharge from hospital or the treatment programme.

Ellsworth and Maroney (1972) found that patients who were rated by relatives as showing better community adjustment saw staff as being more receptive to their needs. It is possible that treatment milieu might be related to treatment outcome because certain milieux lead to a higher

level of patient satisfaction with treatment, which in turn leads to more favourable treatment outcome (Moos, 1974).

One of the difficulties in relating treatment atmosphere to treatment outcome is that there is often a disparity between how patients behave in treatment and how they behave after discharge. Another difficulty is that different kinds of patients react differently to the same setting (Moos, 1968, Raush et al., 1959, 1960), so that it makes it difficult to replicate studies and to predict behaviour from a knowledge of the treatment setting. Lastly, it is difficult to isolate the effects of the environment on patient behaviour from the effect that patient behaviour has on the environment. This is especially the case if one conceives treatment as an interaction between the treater and the treated (Strupp and Bergin, 1969). Even with the above drawbacks, there seems to be enough research from other patient populations (Moos, 1974) to indicate that a study of treatment atmosphere in relation to treatment outcome would be a fruitful and necessary area for study in evaluating alcoholism treatment programmes.

#### Section 6.7. Summary

The present chapter considered the importance of treatment milieu and the ways it can be assessed. In terms of the present study, it was decided to concentrate on methods which assessed the psycho-social aspects of milieu, as most work has been done in this area, so that



we have already become familiar with some of the advantages as well as some of the difficulties of this approach. Paper-and-pencil techniques were thought preferable to observational methods because the former were seen to be briefer, easier to use, and more easily replicable in the case of repeated studies. Out of several paper-and-pencil inventories that have been developed, the Ward Atmosphere Scale (WAS) was thought to be superior because it has been used often enough to have shown acceptable validity and reliability. The research assessing treatment milieu has also shown that staff and patients perceive treatment atmosphere somewhat differently. Some of the disadvantages of paper-and-pencil assessments of milieu were noted, especially the possibility that subjects' characteristics might influence their milieu perception.

Lastly, the chapter discussed some of the research showing a relationship between treatment atmosphere and treatment outcome. Difficulties encountered in this type of research were noted, including a possible inability to generalise to some alcoholism treatment programmes.



## CHAPTER 7

### A Possible Relationship Between Therapist (Staff)-Offered Qualities, Treatment Milieu and Treatment Outcome

#### Section 7.1. Introduction

This chapter will attempt to briefly outline a hypothetical model relating therapist qualities to treatment milieu and then to treatment outcome. The model is suggested as only one possible way of describing the inter-relationship between milieu, staff-patient relationships and treatment outcome. It is important to note that the present study is not an attempt to prove the model as outlined in this chapter. We will, however, comment at the conclusion of the thesis as to whether or not the data support the possibility of such a model. Many more studies will have to be conducted before a definite causal model can be arrived at.

#### Section 7.2. The Model

We have already seen that both therapist-offered qualities of empathy, warmth, acceptance and self-disclosure, as well as milieu, are related to treatment outcome. The next question we must examine is whether the treatment milieu affects the amount of empathy, warmth, acceptance and self-disclosure shown toward the patients by the staff

or vice versa. Moos (1974) and Sideman and Moos (1973) have maintained that the milieu is important because it allows certain behaviours (from the staff) to emerge that are seen to produce therapeutic change in patients. In terms of the present study, this would then mean that milieu determines the amount of empathy, warmth, acceptance and self-disclosure that staff show toward patients.

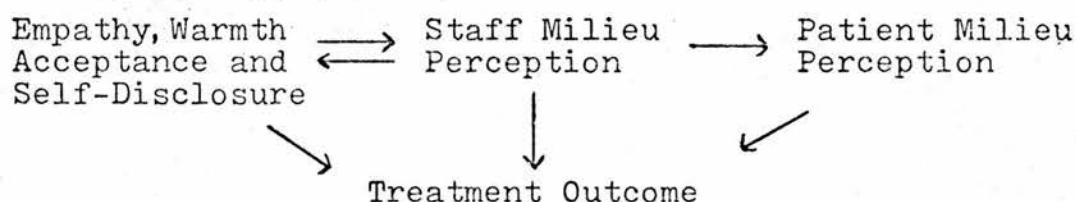
One might argue, however, that, in measuring empathy, warmth, acceptance and self-disclosure with indirect methods (as in the present study), one is really measuring attitudes rather than behaviour (Burck et al., 1973). If this were the case, then, the milieu would not serve to determine the way staff behaved toward patients.

Astin and Holland (1974) argue that characteristics of group members help to determine their perception of milieu. If one accepts the idea that indirect measures of empathy, warmth, acceptance and self-disclosure measure attitudes rather than behaviours and if one, at the same time, accepts the possibility that the attitudes of group members are one subset of their characteristics, then one could claim that staff qualities of empathy, warmth, acceptance and self-disclosure influence their perception of the treatment milieu. For the present time, there does not appear to be enough evidence to rule out either direction of causality. The amount of empathy, warmth, acceptance and self-disclosure shown to the patients can determine the milieu perceptions of the staff and vice versa.

The question then arises as to whether or not the

patient perception of milieu is influenced by the staff perception, as argued by Moos (1974). This seems reasonable, if one accepts that staff (except in the case of patients with a long series of admissions) have been on the ward prior to patients and that staff, by virtue of the fact that patients perceive them as being in a position of authority (Schein, 1969) are in a position to influence patient perceptions of the treatment milieu. The model then becomes the one shown in figure 7.1., where each factor can influence treatment outcome. Alternatively, empathy, warmth, acceptance and self-disclosure can interact with staff milieu perception, which can contribute to treatment outcome by influencing patient perception of the treatment milieu.

Figure 7.1



### Section 7.3. Summary

This chapter discussed a possible model which related staff characteristics of empathy, warmth, acceptance and self-disclosure, staff milieu perception, as well as patient milieu perception, to treatment outcome. There is not sufficient evidence to suggest whether the staff perception of milieu influences the way they relate to patients or vice versa. Pending further evidence, it was decided that the relationship can go in either

direction. Furthermore, the model is based on the possibility that staff milieu perceptions influence those of the patient, which in turn influence treatment outcome.

Alternatively, each of the above factors within the treatment process might act independently to influence treatment outcome.

PART TWO

METHODOLOGY

## CHAPTER 8

### Description of the Treatment Programmes in the Present Study

#### Section 8.1. Introduction

It was stated in chapter 6 that the present study will assess treatment milieux by paper-and-pencil techniques, which will be supplemented by material from informal observation. This chapter will describe each of the treatment programmes involved in the present study, based on material from informal observation and discussion with treatment staff. Subsequent sections in the chapter will provide a description of each treatment programme.

#### Section 8.2. Treatment Programme A

Programme A is the Unit for the Treatment of Alcoholism at the Royal Edinburgh Hospital. The unit is a eighteen bed inpatient unit, admitting both male and female patients. Prior to admission, all patients have an in-depth intake interview, in which the patient's drinking problem, current family and social functioning, as well as physiological functioning, are discussed with a social worker and (possibly) other treatment staff. During the course of the interview, patients are also told about the treatment offered in the unit. The patient's spouse is

also interviewed. During the course of the intake interview, the patient's suitability for treatment is assessed. If the patient is thought suitable for treatment, he is asked to come into the unit for a two-week trial period. These patients are referred to as "North" group patients. During these two weeks, North group patients attend group psychotherapy meetings at least once a day. The group meetings are psychoanalytically oriented, in that patients examine past events in relation to present problems as well as focusing on feelings the group members have toward each other, at the time of the meetings. During these first two weeks, patients are generally "introduced" to the process of group psychotherapy, as many of the members have not experienced psychoanalytically oriented group psychotherapy.

The North group meetings are led by either psychiatrists, nurses or social workers. Group leadership is not seen as exclusively a psychiatric function. Following the meetings, the proceedings are fed back to those members of staff who are present. Such feedback sessions are often unplanned, but there are planned meetings as well, happening several times per week. The day's proceedings are also communicated to the night staff, who, in turn, share what happens during their shift with the members of the day shift. Some of this sharing is done by entries in patients' records, but some is communicated verbally between staff. There is also a notebook to record a summary of what patients say if they phone the unit. This material is seen as being an important



indicator of patients' drinking behaviour following discharge, as many patients phone the unit during times of stress or time of drinking. In short, it appears that there exists a highly structured mechanism to insure that staff are familiar with the progress (or lack of it) of patients. This system of staff communication prevails through each phase of the treatment programme.

At the end of the first two weeks, each North group patient is discussed amongst the staff. The patient is evaluated in terms of progress shown during his period with the North group and his suitability for the more intensive group experience of the "South" group. In determining suitability for the South group, staff take into consideration the patient's communication to the North group, his or her motivation for continued treatment, and prognosis. If the patient is thought to be suitable, he is offered a place and, if he accepts, he generally stays for another six to eight weeks. If, on the other hand, the staff feel that the patient can benefit from additional inpatient treatment while not being suitable for the South group, he is then offered the opportunity of staying one to two weeks more in the North group. The majority of patients do not go on to the South group. This might not always be due to staff decisions, as it is possible for a patient to refuse a place in the South group.

As already mentioned, the South group is seen as a more intensive group experience. There are four meetings per day, for a period of six to eight weeks. Although

the writer has not been able to attend a South group meeting, it would appear (from conversations with staff and from observing feedback of the group process) that the South group is geared to deeper and more intensive exploration of feelings. Exploration of feelings, rather than drinking behaviour (as in the case of the North group), seems to be the main topic of discussion in South group meetings.

There are other activities for both North and South group patients. These include poetry groups, socio-drama, pottery groups and occupational therapy. As before, patients' behaviour in these groups is communicated at formal and informal staff meetings. Each group operates in a specific time schedule and patients are always aware of the times and locations of the various meetings. On the whole, a patient's day is highly structured.

With the exception of one single bedroom, accommodation is shared. The staff believe that sharing encourages the patients to discuss the group meetings amongst themselves. Each patient has minimal responsibilities, such as caring for his or her own bed and washing up his or her own crockery. Patients are delegated other responsibilities, such as preparing evening tea on a rota basis.

Follow-up groups are provided, which meet on a weekly basis, after discharge. These groups meet on Saturday evenings and both North and South patients can attend. However, a patient cannot attend the group if intoxicated, although he or she can talk to a staff member, who usually will ask him or her to return for an appointment when

sober. There are other types of follow-up groups, such as relatives groups, couples groups and a closed group (about six patients) for patients without spouses, who the unit feels might have a greater difficulty after discharge.

Staff are generally very supportive of patients. They encourage patients to share personal problems and to become involved in their (the patients') treatment by sharing feelings with other patients. A particular effort is made to communicate to patients what they can expect from treatment and what they will be required to do while undergoing treatment. Medication such as Abstem is also made available to patients upon discharge. The staff in the unit feel that Abstem might act as a temporary deterrent for patients who feel that they must return to drinking.

### Section 8.3. Treatment Programme B

Programme B is the detoxification programme at the Southern General Hospital within the Department of Psychological Medicine of the University of Glasgow. Patients are admitted for detoxification, for a period of two weeks. Patients are initially seen by the consultant or one of his staff, to assess the need for inpatient detoxification. If the patient is thought not to be in need of detoxification, he is allowed to come to the hospital daily to attend lectures, or he is referred to other treatment facilities, such as AA, the Glasgow Council on Alcoholism or Programme E (see section 8.5). The

patient may also attend lectures at the hospital, while attending the other treatment facilities. Patients thought to be in need of detoxification are placed on a waiting list, pending the availability of a bed in the ward.

During their time in the ward, patients receive medication to aid in the detoxification process. They also attend two daily half-hour lectures on some aspect of problem drinking or recovery. The lectures are usually taken by the consultant or, if unavailable, by the Senior Registrar. The consultant is a specialist in drug and alcohol problems. Other than the lecture, there is no on-going group activity for the patients. There is one ward meeting per week, but its importance is not stressed and patients are not encouraged to attend. Similarly, there is also an occupational therapy group which the alcoholic detoxification patients can attend, but patients are not encouraged to do so. In general, there is little for the patients to do, in terms of ward activities, and many patients complain of being bored.

There are three subsections in this male acute admissions ward, which houses the detoxification programme. Each subsection has approximately sixteen beds. There are approximately two to four alcoholic patients admitted per week. None of the beds (in terms of a designated area) are specifically allocated to detoxification patients, so that they occupy beds throughout the ward.

There does not appear to be much communication between the staff in programme B. They are generally disinterested (or appear to be) in the progress of the

detoxification patients. Staff meetings are held infrequently. Staff are generally discouraged by the senior nursing staff from becoming involved in the treatment of the alcoholic patients. The nursing staff (particularly the senior staff) generally view the detoxification patients as posing a problem to ward management. Staff appear to be more interested in running a ward with a minimum amount of disruption. It is apparent that staff assume patients do not wish to stop drinking and that they (the patients) will be frequent readmissions. This negative attitude might be partially caused by an admissions policy that allows patients to return for admission at six-month intervals, depending on their need for subsequent detoxification. In general, the staff are not very supportive and see patients in an unfavourable light, as can be evidenced from a number of sarcastic comments made in the duty room about alcoholics.

#### Section 8.4. Programmes C and D

Programmes C and D are two similar acute admission wards in the Royal Edinburgh Hospital. There is no specialised treatment programme for alcoholics, but there are daily ward meetings. All patients are able to attend, assuming they are not overtly psychotic. There is a considerable amount of occupational therapy offered (meeting daily) and patients are strongly encouraged to attend. Staff meetings are held at least once per week. During these patient progress, as well as ward management, is discussed. It is not uncommon to hear discussion about patients in the duty room amongst the staff. Programme D

differs from programme C in that there appear to be more staff meetings in programme D. Also, programme D is located adjacent to the detoxification project. This poses some special problems, in that staff have often shown concern regarding possible disruption in programme D, when patients in the detoxification programme have been particularly disruptive. It is almost as if staff felt that a serious patient disturbance in the detoxification programme might cause a similar occurrence in programme D, especially since there is a considerable amount of contact (socialisation) between the patients in the two wards.

#### Section 8.5. Treatment Programme E

Programme E is an outpatient alcoholism treatment programme in Glasgow. Patients can be referred by their GPs or they can come on their own. A few patients come to the clinic after getting discharged from the detoxification programme at the Southern General Hospital. Some learn about the programme from other patients.

Treatment is divided into two stages: an early stage group and a later stage group. Patients in the first stage group are those who have been off drink for less than six weeks. Many of these patients continue to drink while attending the clinic, although they are not permitted to attend meetings if intoxicated. The early stage group, called the "survival" group, discusses how to avoid drinking situations and problems that patients might encounter during the first six weeks of abstinence.



The survival group is mainly a discussion group. There is no emphasis at this stage on examining emotional difficulties that might underlie the drinking problem. The group is seen by the staff as providing practical information. This practical information is supplemented by lectures which provide basic information about alcoholism, such as how to recognise a drinking problem, the types of treatment available, etc. During some meetings, patients are given a topic to discuss amongst themselves. The group leader assigns someone in the group to take notes on the discussion. Patients who have been off drink for more than six weeks (the second stage group) are also given a similar topic and asked to discuss it amongst themselves. As in the survival group, a patient is asked to take notes about the nature of the discussion. After both early stage and second stage groups have met for an hour, they come together to share feedback. The blackboard is divided into halves (half for the early stage and half for the second stage) and the persons who took notes read them back to the combined group. One of the staff summarises each group's notes by writing the main points on the appropriate half of the blackboard. He then comments on the difference in feedback from the early and second stage groups. Patients are also free to comment.

The second stage group meets once a week for a group that is oriented toward expression of some of the patients' emotional difficulties. This psychotherapeutically oriented group often deals with those situations which



patients find particularly difficult while not drinking, such as work, family situations, economic problems, depression, etc. It should be noted that the psychotherapeutically oriented group was formed early in September 1974. Prior to that, treatment consisted solely of the discussion and feedback sessions, as outlined above.

Other therapeutic techniques have also been tried with the second stage group. These have included role playing, confrontation exercises (Schutz, 1967) and relaxation exercises. New treatment techniques are implemented (in the second stage group) and tried for a period of up to three months. It is then discussed at a staff meeting whether the technique has proved beneficial and, if so, whether it should be continued. The decision about continuing a treatment technique has often depended on the availability of staff, since all staff run groups without being financially remunerated.

Programme E has a staff of eight to ten, including four recovered alcoholics. The recovered alcoholics are seen as playing a vital role in the treatment process, in that they are thought to act as an incentive for other patients. Staff are generally supportive of alcoholics. It is expected that patients attend at least twice a week and become involved in their treatment. Patients who have repeated relapses and who are not seen as becoming involved in their treatment (in terms of making a contribution to their group) are asked to leave the clinic programme. They can return if they demonstrate a willingness to make some contribution to treatment, such as

attending AA. It is also hoped that some of the patients will be able to assume the role of a clinic worker, after being sober for one year. These former patients are seen to be particularly valuable in helping new patients during the early stages of their sobriety.

Until October 1974 (data collection was from May 1974 to February 1975), the staff met once a month to discuss the workings of the clinic. All staff were invited to attend this meeting. There were also unscheduled and impromptu meetings prior to that time. It was decided, however, that more staff meetings were necessary and weekly meetings were instituted. During these meetings, problems with specific patients are discussed, as are ways in which the functioning of the clinic can be improved.

Staff are concerned whether patients have a clear idea about treatment. This is especially the case since staff shortages make it difficult to provide routine intake interviews. To compensate for this, there are lectures for new patients about problem drinking and treatment, so that patients can get an idea about what to expect from treatment. Patients, upon first attendance at the clinic, receive a list of AA chapters throughout Glasgow. This is done because many patients often need more contact with a treatment agency than can be provided by the clinic. Regulations and other announcements are placed in the clinic lobby, so that patients can become familiar with these at their leisure. Any time there is a change in the treatment programme, the patients receive

a notice about the change through their group leaders. As can be seen from the above description, the staff try to make sure the patients are provided clear and unambiguous information about the treatment process.

Programme E does suffer from poor administration, mainly due to disordered secretarial services and lack of administrative staff. Although this is hard to be specific about, one gets the impression that, while the programme is highly structured, the administration is rather haphazard. Because of the absence of permanent staff and the erratic administration, special treatment needs of individual patients tend to get ignored. Very little attempt is made to tailor treatment to the individual needs of patients, unless the patient is presenting treatment problems. Also, case conferences are not normally scheduled, but are only held if a patient is making unsatisfactory progress or is presenting treatment problems. Because of the poor administration, special requests from patients, such as letters, appointments, etc., are often acted upon after considerable delay.

All of the above descriptions are applicable only to the time period during which the data were collected. There have been substantial changes made in programmes A, E and B, since the study was completed. These changes were not included because it was felt that they were not germane to the research.

### Section 8.6. Goals of the Treatment Programmes

It is also important to note the goals and target population of each treatment programme, as this might help to place data gathered during the present research in clearer perspective. Programmes A and E can be classed as curative programmes, in that both have the primary goal of helping patients stop drinking. Both also have a secondary goal of helping patients improve social and psychological functioning. Programme B is geared toward patients who have been drinking and who are likely to continue to do so, although they might say otherwise. The assumption behind programme B is that, in dealing with patients who have little motivation to stop drinking, all that one can do is to provide brief periods of detoxification, in order to halt or slow down the progression of medical complications and thereby reduce the risk of the patient dying from alcohol-related complications (Mullin, 1969). It is also hoped that brief periods of detoxification, coupled with lectures pertaining to drinking, will act as an inducement for the patient to seek treatment after discharge in an alcohol recovery programme. Programmes C and D are, in the first instance, detoxification programmes, but they are also interested in helping patients stop drinking. In this sense, they are midway between programme B on one hand and programmes A and E on the other. Patients who remain in programmes C and D are those patients who are thought not to be suitable to enter programme A.

## CHAPTER 9

### Purpose and Design of the Present Study

#### Section 9.1. Introduction

This chapter is concerned with focusing on the purpose of the present study and describing the design of the research. We have already briefly discussed the purpose of the present study in terms of its departure from previous research and have noted several methodological problems which one might encounter in evaluating treatment milieu and staff-patient relationships. This chapter will expand upon what has already been discussed and place both purpose and methodological issues in the context of the research design for the present study.

#### Section 9.2. Purpose of the Present Study

We have already discussed the major flaws in much of the alcoholism research. One of the purposes of the present study is to correct some of these faults. The present study will differ in five main respects from much of the research already reviewed. These differences are:

1. Five treatment programmes will be examined instead of one or two. This will broaden the range of the sample so that some generalisation from the present findings might be possible

2. Several different measures of outcome will be used, instead of only considering those directly relating to drinking behaviour
3. Examining aspects of the treatment process, such as staff-patient relationships and treatment milieu, rather than merely viewing treatment as if it were a dichotomous variable, and identifying those components of staff-patient relationships and treatment milieu that are associated with treatment outcome
4. Examining changes in patients from admission to discharge, and from discharge to follow-up, as well as from admission to follow-up, as is often the case
5. A relatively short follow-up period will be used, rather than the six-month or one-year period that is customary. Long follow-up periods make it difficult to locate patients. Also, the longer the follow-up, the greater the likelihood of intervening variables, which decrease our ability to attribute any change at the time of follow-up to factors or variables within the treatment process (Hill and Blane, 1967). Most importantly, given that a high proportion of patients resumes drinking less than three months after discharge (Vallance, 1965), it would seem prudent to focus on a shorter period of follow-up. In this way, we might be able to determine factors within the treatment process that might contribute to the cessation of drinking during this time.

### Section 9.3. General Description of the Instruments

#### Clarke Adjustment Scale<sup>1</sup>

As mentioned before, one of the goals of the present research was to extend the range of outcome criteria beyond measures of drinking behaviour to also include other areas of patient functioning thought to be important in the treatment process. Ritson (1968), Mindlin (1959) and Cahalan (1970) have noted the importance of social functioning for treatment outcome. This would seem to suggest that improvement in social functioning might be one goal of treatment which can be used as a possible indicator of treatment outcome in the present study. Unfortunately, one is hampered by the lack of suitable measuring instruments designed to assess the patient's social functioning. Many of the instruments developed so far have been rather lengthy. It was felt that it would be unwise to administer lengthy instruments to patients, as this might result in long interviews, which could tend to alienate patients and make it less easy to obtain their cooperation in future interviews. Also, many of the treatment staff expressed concern that lengthy interviews with patients might disrupt treatment. For these reasons, it was decided to use instruments which were as short as possible, given the need to obtain valid and appropriate information.

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<sup>1</sup>Clarke (1968) first refers to the instrument as the Personality and Social Network Adjustment Scale. He then goes on to refer to it as the Adjustment Scale. Because Clarke derived the instrument, it will be noted in the present study as the Clarke Adjustment Scale.



Strauss and Bacon (1951) developed a five-point scale of social stability under which a subject receives one point for signs of stability in each of the following areas: marriage, work, residence and interpersonal relations. Because of its extreme brevity, the measure would appear to be very attractive. Yet, it was felt that the mere assignation of zero or one, for the absence or presence of large aspects of social functioning, was too crude. What was needed was a relatively brief instrument that would allow one to assess the absence or presence of a quality but which would allow for some gradation as well.

Clarke (1968) has developed a test called the Adjustment Scale (referred to as the Clarke Adjustment Scale or CAS, in the present study), which seems to satisfy most of the above criteria for a brief instrument assessing social functioning. In its original form, the CAS consisted of seventeen items. The patient was asked to indicate the degree to which the item adequately described an area of social functioning. The areas assessed by the CAS are the patient's societal, work, interpersonal and psychological functioning. Clarke's rationale for developing the CAS was that patients' psychological conflicts were in part caused by difficulties in social functioning.

Liberman (1974) has used a modified version of the CAS to assess improvement in patient social functioning following psychotherapy. In this version, the items pertaining to societal functioning (drinking, trouble with the law and receiving psychiatric treatment) were removed, resulting in a fourteen-item instrument. The test was

scored by giving a zero to the most dysfunctional response for each item and increasing the value of each response by a factor of one. This means that an item with six possible responses would be scored from zero through five. A score of zero would then indicate the least positive social functioning pertaining to that item, while a score of five would indicate the most positive social functioning. With this method, total scores (the sum of the scores for each item) could range from zero to 53. Rather than using the total score, items were grouped (on prima facie grounds) into three categories: those measuring employment functioning, those measuring interpersonal functioning, and those measuring social functioning. A score was obtained for each area of social functioning, using the method outlined above. It was felt that this scoring was preferable to obtaining a total functioning score, as it hopefully would allow us to isolate the areas of social functioning that are more sensitive to showing change after brief treatment intervention, as well as allowing us to isolate those aspects of the treatment milieu which seem to be associated with changes in specific areas of social functioning.

Liberman (1974) has noted that his modified version of the CAS was able to discriminate between normal subjects (with a total score of 42, as interpreted from a graph) and those seeking treatment (with total scores ranging from 31 to 35, as interpreted from a graph. The test, according to Liberman, was also able to show significant changes in patients' scores following treatment.

These results were encouraging enough to warrant further use of the modified CAS.

Originally, the version used in the present study was in a self-report format, where the subject was asked to tick the choice that best described his social functioning in given areas. The version used in the present study is a further modification of Liberman's instrument, in that patients have the items read to them rather than using a self-report format. See section 9.4 for a detailed description.

#### Alcadd Test<sup>1</sup>

Steiner (1971) noted the tendency of alcoholic patients to structure their lives around the consumption of alcohol, in such a way as to almost use alcohol to fill time. Therefore, a major goal of alcoholism treatment would seem to be that of encouraging the alcoholic to develop other activities that can more profitably occupy his time. Implicit in this is the need for the alcoholic to orient his life around other pursuits than drinking. One of the goals of therapy, then, is to help the alcoholic change his life-style, or re-orient his life. It would seem difficult to directly measure the degree to which the alcoholic changes his life-style, as operationalisation of the variables suitable for measuring life-style would be difficult. Alternatively, one might measure specific factors that underlie a change in life-style for the alcoholic.

Manson (1949) developed a paper-and-pencil test, called the Alcadd, to detect alcoholic patients and to measure behavioural and personality qualities thought to

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<sup>1</sup>The proper name of this test is the Alcohol Addiction test. It is cited in most research as the Alcadd test.

be associated with alcoholics. The test originally consisted of sixty items to which the alcoholic was asked to answer yes or no, based on the extent to which he feels individual items are applicable to his case. Manson concluded that the Alcadd demonstrated acceptable reliability (.92 for males, using a modification of the Kuder-Richardson formula) and that the total Alcadd score successfully discriminated between known alcoholics, social drinkers and abstainers. Manson then went on to subjectively analyse the individual items. He concluded that the items fell into five clusters: Regularity of Drinking; Preference for Drinking over Other Activities; Lack of Controlled Drinking; Rationalization of Drinking; Excessive Emotionality. Because items were chosen rationally, rather than empirically, there is a considerable overlap of items between the five clusters.<sup>1</sup>

Of the above item clusters, two (Preference for Drinking over Other Activities and Rationalization of Drinking) were selected because they seemed, on prima facie grounds, to be conceptually related to how one structures one's time with drinking, or to a life-style of heavy alcohol consumption. These dimensions were subjectively chosen and were not selected on the basis of an empirical item analysis. Therefore, they can only be seen

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<sup>1</sup>The fact that both the CAS and the Alcadd had items that were grouped on the basis of rational, rather than empirical, analysis is not necessarily a disadvantage. Jackson (1975) found that students, who received training in rationally based item writing, developed personality tests with superior validity to those developed by empirically based item selection.

as a crude measure of alcoholic life-style. Given the difficulty of operationalising the above concepts, it would have been difficult to develop more precise measures.

Because several items were in both clusters (henceforth called subscales) only those items that were associated with either (and not both) subscale were used in the present study. This insured that there would be no subscale overlap and, hence, less ambiguity about what was being measured. Selection of items on this basis yielded nineteen items, of which eight comprised the Preference for Drinking over Other Activities subscale (now called the Preference or P subscale), while the remaining items comprised the Rationalization of Drinking subscale (now called the Rationalization or R subscale). An item was scored as either zero or one, zero meaning that it was not scored in the keyed direction. The total score for each subscale is the algebraic sum of all items scored in the keyed direction. As before, the instrument was originally developed for a self-report format but was changed so that items were read to the subjects as part of the interview. Details of this will be given in section 9.4.

#### The Ward Atmosphere Scale<sup>1</sup>

The advantages of using the Ward Atmosphere Scale (WAS) to assess **perceived** milieu have already been noted. Moos (1973) and Moos and Houts (1968) describe the development of the WAS. Items were written which described the milieu of different treatment settings. The

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<sup>1</sup>Form C in appendix A.

development of items, according to Moos, was guided by the notion of environmental press--that is, an item had to describe an environment with a given observable quality, which persons could easily sense. Stated alternatively, environmental press was that characteristic or trait of an environment which moved it toward a particular dimension. In other words, if one of the dimensions of milieu was control of patients, items had to be developed which allowed subjects to indicate whether or not a particular environment showed characteristics indicative of patient control.

The initial item pool, consisting of 500 items, was reduced to a 99-item inventory,<sup>1</sup> which allowed one to assess milieu perceptions along ten dimensions (called subscales). The ten subscales and their corresponding definitions are:

Involvement (I). Measures the extent to which patients are encouraged to be active and energetic in the day-to-day social functioning of the ward, both as members of the ward as a unit and as individuals interacting with other patients. Patient's attitudes, such as pride in the ward, feelings of group spirit and general enthusiasm, are also assessed.

Support (S). Measures the extent to which patients are helpful and supportive toward other patients, how well the staff understand patient needs and are willing to help and encourage patients, and how encouraging and considerate doctors are toward patients.

Spontaneity (SP). Measures the extent to which the environment encourages patients to act openly and to express their feelings freely toward other patients and the staff.

Autonomy (AUT). Measures the extent to which patients are encouraged to be self-sufficient and independent in their personal affairs and in their relationships with staff,

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<sup>1</sup>A detailed discussion of how items were selected is given in Moos, 1974.



how much responsibility and self-direction patients are encouraged to exercise, and the influence on staff of patient suggestions, criticism and other initiatives.

Practical Orientation (PO). Measures the extent to which the patient's environment orients him toward preparing himself for release from the hospital and for the future. Training for new kinds of jobs, looking to the future, and setting and working toward practical goals are among the matters considered.

Personal Problem Orientation (PPO). Measures the extent to which patients are encouraged to be concerned with their feelings and problems and to seek to understand them through openly talking to other patients and staff about themselves and their past.

Anger and Aggression (AA). Measures the extent to which a patient is allowed and encouraged to argue with patients and staff, to become openly angry, and to display expressions of anger.

Order and Organization (OO). Measures the extent to which the importance of order is stressed in terms of staff (what they do to encourage order) and the ward (how well it is kept); also, it measures the extent to which organization is seen as important in terms of patients and staff.

Program Clarity (PC). Measures the extent to which a patient knows what to expect in the day-to-day routine of the ward and how explicit the ward rules and procedure are.

Staff Control (SC). Measures the extent to which it is necessary for staff to restrict patients; that is, the strictness of the rules, the schedules, regulations governing relationships between patients and staff, and measures taken to keep patients under control (Moos, 1974).

Moos (op. cit.), based on prima facie assumptions, states that the first three subscales can be grouped together to form a Relationship dimension. The Relationship dimension assesses the intensity of interpersonal relationships between staff and patients, as well as between patients and patients. The next four subscales are seen by Moos as comprising the Personal Development dimension. This dimension measures the degree to which an inpatient programme is stressing aspects of milieu seen to be important for



personal growth and development. Moos (op. cit.) notes that the last three subscales can be seen as comprising the Systems Maintenance-Systems Change dimension. This last dimension combines elements of the treatment milieu that are seen to be necessary for smooth running of in-patient treatment programmes.

As mentioned previously, the WAS is a ninety-nine item inventory. It was felt that this was somewhat too long, since the WAS had to be included with several other research forms. Moos (1973, 1974) reports on the development of a shortened version of the WAS, which has forty items. Four items were selected from each subscale, with the highest item to subscale intercorrelation, provided that there was an equal split between those items scored "true" and those scored "false". Where this was not possible, a 3:1 ratio (three items scored true to one scored false) was allowed. Interclass correlations were computed between the subscale scores from the short form (form S) and the subscale scores from the regular form (form C) for twenty-eight different wards. In twenty-five of the twenty-eight wards for a patient sample, the interclass correlation was greater than .80, as was the case for twenty-seven of the twenty-eight wards in the staff sample. Moos (1974) concludes that form S of the WAS gives highly similar results to form C and has the advantage of brevity discussed previously. It was, therefore, decided to use form S of the WAS in the present study. The means and standard deviations of an American sample of 160 wards are presented in table 9.1.

TABLE 9.1.--Mean Patient and Staff WAS (Short Form)  
Subscale Scores and Corresponding Standard Deviations  
for an American Sample of 160 Wards

WAS Subscale	Patients		Staff	
	Mean	S.D.	Mean	S.D.
I	2.18	0.61	2.42	0.77
S	2.04	0.54	2.69	0.55
SP	1.90	0.57	2.63	0.51
AUT	2.53	0.51	3.19	0.57
PO	2.49	0.49	3.46	0.38
PPO	1.97	0.61	2.37	0.79
AA	2.28	0.59	3.02	0.61
OO	2.49	0.59	2.31	0.81
PC	2.16	0.54	2.69	0.58
SC	2.14	0.61	1.32	0.57

Unfortunately, data for the short form have not been reported for British samples. Norms for a British sample are reported by Moos (1972a) for the longer version of the WAS (form C). Because form C is not used in the present study, the norms are not reported here. Moos (1974) has also reported that programmes' WAS profiles are extremely stable over time and are not merely a function of the type of patients or staff who are tested at a particular time. Furthermore, he reports that WAS scores appear to be independent of sample size, social desirability and subject anonymity.

The Community Oriented Program  
Environment Scale<sup>1</sup>

Moos (1972b) and Moos and Otto (1972) have reported on the development of the Community Oriented Program Environment Scale (COPES), which assesses the psycho-social milieu of community oriented psychiatric treatment programmes. The COPES was used<sup>2</sup> as a companion to the

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<sup>1</sup>Form D in appendix A.

<sup>2</sup>In the present study.

previously described WAS, so as to provide an almost identical milieu assessment for outpatient programmes. The ten subscales of the COPES are the same as those of the WAS. They are defined as follows:

Involvement (I). Measures the extent to which members are active in the day-to-day functioning of their programme.

Support (S). Measures the extent to which members are encouraged and supported by staff and other patients.

Spontaneity (SP). Measures the extent to which the programme encourages members to act openly and to express their feelings openly.

Autonomy (AUT). Measures the extent to which members are self-sufficient and independent in making their own decisions.

Practical Orientation (PO). Assesses the extent to which the environment orients the member toward preparing himself for release from the programme.

Personal Problem Orientation (PPO). Measures the extent to which members are encouraged to be concerned with their personal problems and feelings and to seek to understand them.

Anger and Aggression (AA). Measures the extent to which a member is allowed and encouraged to argue with members and staff, to become openly angry, and to display other aggressive behaviour.

Order and Organization (OO). Measures how important activity, planning and neatness are in the programme.

Program Clarity (PC). Measures the clarity of goal expectations and rules.

Staff Control (SC). Assesses the extent to which staff determine rules.

As can be seen from the definitions, the two sets of subscales are virtually identical. The subscales also are grouped into the same underlying dimensions already given for the WAS (Moos, 1974).

At the time the present study was conceived, there was no shortened version of the COPES. In order to

develop one, items were selected from the long form of the COPES which directly parallel the items from the short form of the WAS. In four instances, there was no direct parallel between an item on the short form of the WAS and a corresponding item on the COPES. Where this happened, an item was devised to directly parallel the particular item on the WAS by substituting in the WAS item the word "programme" for "ward" and the word "staff" for "doctor" or "nurse". Furthermore, there appeared to be one less item on the S subscale of the COPES than on the WAS. This resulted from two items on the WAS (one for doctors and one for nurses) being fused together as one composite item for staff on the COPES. The S subscale of the COPES then has three items instead of four.

Both WAS and COPES were scored in a similar manner. Patients were asked to answer whether an item was true or false about their programme. An item was given a score of one if a patient answered in the keyed direction and a score of zero if the item was not answered in the keyed direction. When the WAS and COPES was administered to the staff, it was administered as a self-report instrument, as it was originally developed. The necessity to change from a self-report format to an orally administered format, in the case of patients, is detailed in section 9.4. The score on each subscale is the algebraic sum of all items on that subscale that were answered, or circled in the case of staff, in the keyed direction. In order to correct for the differing number of items on the S subscale of the COPES, that subscale score (only )

on the COPES) was multiplied by four-thirds and rounded to the nearest half, in the present research. The form of the WAS and COPES used in this study appears in appendix A.

### Barret-Lennard Relationship Inventory<sup>1</sup>

In the light of what has already been discussed regarding staff-patient relationships, any measuring instrument that would be selected to assess this aspect of the research would have to fulfill two criteria. The first is that it should be a paper-and-pencil technique and the second criteria is that it had to relate to the relationship qualities of empathy, warmth, acceptance and self-disclosure. The Barret-Lennard Relationship Inventory (BLRI) (Barret-Lennard, 1962) was developed to assess patient and therapist perception of their relationship to each other. It had the drawback of being difficult to score and its eighty-five item length made it somewhat longer than desired. However, there seemed to be little else capable of assessing staff-patient relationships with respect to the above qualities.

Wiebe and Pearce (1973) reported an item analysis of the BLRI. They concluded that several items did not discriminate well and were keyed to the wrong subscales. It was suggested that all items be deleted from the inventory which failed to do the following: correlate most strongly with their keyed subscale; have an item-subscale correlation greater than .50; and discriminate between high and low scores at the .05 level of significance. This resulted

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<sup>1</sup>Form B in appendix A.

in a forty-two item inventory. Items fell into five subscales. The subscales and their corresponding definitions are:

Level of Regard (R). The affective aspect of one person's response to another. This may include various strengths of positive and negative feeling.

Congruence (C). The degree to which one person is functionally in the context of his relationship with another, such that there is an absence of conflict or inconsistency between his total experience, his awareness and his overt communication in his relationship with another.

Empathy (E). Empathy or empathetic understanding is the degree to which one person is conscious of the immediate awareness of the other person.

Unconditionality of Regard (U). The degree of consistency of regard felt by one person toward another.

Willingness to be Known (W). The degree to which one person is willing to be known as a person by another, according to the other's desire for this (Barret-Lennard, 1962).

Wiebe and Pearce (1973) further recommend that the W subscale be removed, since they felt it to be conceptually part of the C subscale. The present author rejected this recommendation. First, it was felt that removing the W subscale would eliminate from the research one of the therapist-offered qualities (self-disclosure), which have already been discussed. Secondly, since the inventory has not been tried with staff members working at alcoholic treatment programmes, it was felt that such a major revision might be too premature.

In creating the version of the BLRI used in the present study, items were taken from the Appendix of the Barret-Lennard (op. cit.) monograph. Forty-two of the eighty-five items were used, according to the recommendations of Wiebe and Pearce (op. cit.). The pronouns were



reversed, so as to change each appropriate item from that of the patients' view to that of the staff members'. This was congruent with the instruction in the monograph. The present author also made changes in the scoring system. Originally, an item was scored +3, if a staff member strongly felt that an item was true about his or her relationships to patients, through -3, if the staff member strongly felt the item was not true of his or her relationship with patients. Some staff felt that the presence of negative numbers might be confusing, so a new scoring system was developed as follows:

1=very true  
 2=true  
 3=probably true  
 4=probably untrue  
 5=untrue  
 6=very untrue

The scoring key was placed at the top of the form, as had been the case in the original version of the BLRI. This meant that staff were forced to return to the top of the form each time an item was answered. Since this might be confusing, particularly when a staff member would have had to turn from a later page back to page one, it was later decided to place the key after each item. Figure 9.1. provides an illustration of this.

Figure 9.1

#### Scoring for the BLRI

##### Positively-worded item:

I respect the patients

1=very true; 2=true; 3=probably true  
 4=probably untrue; 5=untrue; 6=very untrue



Figure 9.1 (Continued)

Negatively-worded item:

I prefer to talk only about the patients and not about myself

1=very untrue; 2=untrue; 3=probably untrue  
4=probably true; 5=true; 6=very true

The above method of scoring insured a high score was always indicative of a negative relationship with patients. Positively and negatively worded items were interspersed, although they were not strictly alternated. Strict alternation of positively and negatively worded items would have created too obvious a pattern. The score for each subscale was the algebraic sum of all relevant items. The version of the BLRI used in the present study is included in appendix A.

Omitted Items

In each of the above instruments, items which were omitted or could not be answered were assigned a score midway between the two extreme values for that item. If on a Clarke Adjustment Scale (CAS) item, a score could range from 0 through 4, the item, if omitted, not answered or not applicable, would be assigned a score of 2, which is midway between 0 and 4. In the case of an item with four choices (and thus no middle choice), a value of 1 (the value of the item below the middle item) was assigned. Similarly, if an item had six choices, the median would be midway between the third and fourth choice and the corresponding value of that item would be the number associated with the third choice. This was arbitrary,

since there was no median level of functioning for items with an even number of choices. Fortunately, this happened on only three of the fourteen CAS items.

In the case of the WAS and COPES, an omitted item was given a score of .5, which was midway between the values of 0 and 1. This was also the case for the Alcadd, which also had items that were scored as 0 and 1.

An item omitted on the BLRI was scored 3.5, which was the median value between 1 and 6. In this instance, an omitted response was given the median value, rather than the value of the response below the median, since the response below the median was not always indicative of a more negative or more positive relationship, but varied according to the wording of the item.

#### General Questionnaire

Since the present study was concerned with more than one treatment programme, it was necessary to develop a means for assessing patient characteristics. Patient characteristics were assessed in order to rule out the possibility that any differences in the treatment effectiveness of the programmes (if this proved to be the case) were not merely the result of differences in the distribution of patient characteristics between the treatment programmes, which were also associated with treatment outcome. We have already noted those patient characteristics thought to be associated with treatment outcome. Many of these were included in the questionnaire. In formulating the questionnaire, we were influenced by the

work of Hamilton (1974), who developed forms for collecting data about patients participating in a detoxification programme. The general questionnaire first proposed for the present study covered such demographic variables as age, marital status, residence, prior treatment experience, source of referral, symptomatology of heavy drinking, frequency of drinking, attempts at abstinence, presence of bouts and drinking status. Each of these variables were assessed by up to three questions. No further discussion about this instrument will be included here, as it underwent substantial modification and redesign, which will be described in the next section.

#### Section 9.4. Further Modification of the Instruments

Ritson and Hassall (1970) suggest a brief "pilot phase" to test whether or not the instruments are soundly designed. The pilot phase, according to the above authors, does not have to be very large. Often the use of a form with only a few subjects will reveal difficulties inherent in its design. The major changes which followed from the pilot phase took place in two stages. These stages will be called pilot phase one and pilot phase two. Slight additional changes were made after the inception of the study proper. These changes will also be noted.

#### Pilot Phase One

The original demographic questionnaire, discussed in section 9.3, was not coded. Coding is defined as the assignment of a numeric value to a given response or group

of responses for a particular question. For example, if we noted the patient's sex, all males could be coded as one and all females coded as two. If we asked the patient how long he lived at his current address, any length of time up to and including one year could be assigned a value of one, anything up to and including five years could be assigned a value of two, etc. Coding is particularly important for variables that are not numeric, such as sex, marital status, etc. Unless we assign a value to these non-numeric responses, they cannot be subjected to computerised statistical analysis, except for frequency counts (the number of times a value for a given variable appears in the sample). In order to do more complex analysis, it is necessary to transform (code) non-numeric values of the variable to numeric values. This is usually done in the way described above. Given the necessity for coding, an adequate system for coding had to be chosen. Wherever possible, the coding system developed by Hamilton (1974), for assessing the detoxification project at the Royal Edinburgh Hospital, was applied to the general questionnaire used in the present study. It was thought that Hamilton's coding system was adequate to cover most responses that patients, in the present study, might make to questions being asked. The present study used (or adopted) Hamilton's coding system only to the extent that it was applicable to questions being asked in the present study. Mr. W. Gordon, of the Edinburgh Regional Computing Centre, suggested that the system of coding should be included directly under each

applicable question. In other words, the form would be constructed so that one would have only to circle the number next to the appropriate response, under each question. This allowed one to key-punch directly from the questionnaire, thus reducing errors that can be made when coding is done on a separate sheet of paper. Although the system for coding was decided upon at this time, it was not included on the questionnaire until the final version of the questions was decided.

At the end of the first pilot phase, it was decided to change the WAS, COPES, CAS and Alcadd from self-report measures to orally-administered measures, or interview schedules. After using the instruments as self-report measures, it was found that patients were leaving out too many questions, or else, in the case of the Alcadd and CAS, giving answers that were indicative of less pathology than "normal" subjects. Given that the majority of patients at the inception of treatment had fairly low levels of social functioning and drank fairly large amounts of alcohol prior to their starting treatment, it was felt that patients were finding it too easy to distort their responses, when given the questions in a self-report format. More valid responses might be obtained, if the items were read to the patient by the researcher, during the course of an interview.

#### Pilot Phase Two

Pilot phase two was an attempt to test the adequacy of the modifications made during pilot phase one. Although

the responses to Alcadd items tended to be more valid when read by the interviewer, the responses to the Clarke Adjustment Scale (CAS) did not. John Warder, then psychologist at the Royal Edinburgh Hospital, suggested introducing each CAS item with a series of direct leading questions, which would be formulated so that the patient could not choose what he thought to be the "best" response. For example, one of the CAS questions asks the patient to rate his mental health from very satisfactory to very unsatisfactory. This question would be preceded by three open-ended questions, such as: Could you describe your mental health? Is it as good as you would like it to be? and, If not, why not? The patient would then be instructed to choose one of the five responses (from very satisfactory to very unsatisfactory) that best summarised or reflected the patients responses to the open-ended questions preceding the CAS item. The responses to the open-ended questions would not enter into the data analysis but would hopefully "set the stage" and offer the researcher the opportunity to probe with the patient any major discrepancies between the open-ended material and the patient's chosen response to the CAS item. The CAS was then rewritten to include the leading questions. Using the CAS in this format improved the validity of the patient's responses.

Upon consultation with Dr. Ritson, it was decided to include questions pertaining to whether or not patients had contact with their GPs and if so, for what reason, in the general questionnaire. It was also decided



(independently of Dr. Ritson) at this time to combine the items from the general questionnaire, the CAS items with the leading questions, and the Alcadd items into one interview schedule. Since the questions on all the above forms were to be orally administered, it seemed wise to combine them. Also, it was hoped that the presence of one large form would be less intimidating to the patients than several smaller ones. By the end of the second pilot phase, we were satisfied that the wording of items from the general questionnaire was satisfactory enough to include the coding scheme, which was placed after each item on the new combined interview schedule.

In order to quicken the scoring of Alcadd items, an Alcadd item scoring key was also added to the combined interview schedule. A "P" next to an Alcadd item indicated that it was to be included in the Preference subscale, while an "R" indicated that an item was to be included in the Rationalization subscale. A scoring key was also constructed and added to the WAS and COPES forms. Each WAS(COPES) item was assigned a letter. A double letter indicated that an item was to be scored true and a single letter indicated an item was to be scored false. All items with the same letter (whether double or single) were to be scored under the same subscale. A similar type of scoring key was included on the BLRI. Each item was assigned a letter depending on the subscale it was keyed to. All items with the same letter could then be easily scored under the same subscale. In the case of the WAS, COPES and BLRI, the scoring key was to the left

of the item. The use of a scoring key presented no problem for patients, as they did not see the WAS(COPES) or Alcadd items. In talking with staff, nobody indicated that the use of a scoring key impeded their ability to complete the form or that they were unable to "figure out" what the key meant.

The final form of the combined interview schedule, which included keyed Alcadd and CAS items, was called the Evaluation Project Form.<sup>1</sup> The version of this form used in the present study appears in appendix A. As mentioned before, the final version of the WAS, COPES and BLRI are also included in appendix A.

Some slight changes were made shortly after the study had begun. It was felt that the coding system for questions 12, 23, 24 and 63, would not give a satisfactory distribution for statistical analysis, in that very few patients gave responses that were coded in the first

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<sup>1</sup>The CAS items are included in Employment Functioning, Interpersonal Functioning and Psychological Functioning sections of the Evaluation Project Form. Other questions relating to social functioning are also included in these sections. Questions 15, 18, 21, 31, 34, 37, 38, 41, 44, 47, 49, 51, 53, 57 are CAS items. The letter "A" before a question indicates that it was asked at the admission interview. The letter "B" before a question indicates that it was asked only at the discharge interview. The letter "C" next to a question indicates that it was asked at the admission, discharge and follow-up interviews. The letter "D" in front of a question indicates that it was asked at the admission and follow-up interviews. Patient WAS or COPES subscale scores were transferred from their respective WAS or COPES forms to the corresponding Evaluation Project Forms. The WAS or COPES subscale scores were entered on the Evaluation Project Form. This facilitated key-punching, since all patient data were on one form.

three categories (less than one month, one-to-six months, and six months to one year) for questions 12, 23 and 24. Question 62 was originally coded into six response categories, which were: less than three months; three-to-six months; six-to-twelve months; one-to-two years; two-to-five years; and five years plus. The response categories for these four questions were changed to the following: less than one year; one-to-five years; six-to-ten years; ~~eleven-to-fifteen years~~ and greater than fifteen years. Since the evaluation project form had already been produced, it was not possible to change the above four questions. The actual patient response (twelve years, thirteen years, etc.) was written to the left of the item, and the coding was done (for these four questions) after the data was collected. The Evaluation Project Form in appendix A includes the above changes in coding, which were made within the first week of data collection.

At the same time, it was decided to code how we obtained follow-up information for each patient. There were five possible categories for this variable, which were as follows: personal contact with the author (interviewer); telephone contact with the interviewer; interviewer contacted relative or significant other named by the patient during the first interview; interviewer contacted patient's GP; and lastly, the interviewer contacted the patient's alcoholism treatment programme. No indication meant that no follow-up information was obtained about the patient. This was coded in the box adjacent to question 77 in the Evaluation Project Form from the

discharge interview, as question 77 was not coded on  
this form.<sup>1</sup>

#### Section 9.5. Administration of Research Instruments to Staff

All data were collected from staff between approximately May 15 and June 15, 1974. After gaining initial consent of the staff (a preliminary meeting was scheduled with the staff of each treatment programme to briefly describe the research in order to elicit their cooperation), a second meeting was scheduled to distribute to the staff the modified version of the BLRI and WAS used in the present study. The COPES was given to the staff in programme E, in place of the WAS, since programme E was an outpatient rather than an inpatient programme.

Staff were instructed to fill in the BLRI before filling in the WAS or COPES. The staff members were told to follow the instructions on the form and the author was present at each meeting to answer any questions. It was not possible to arrange a meeting to distribute the forms in programme B. Because of this, the charge nurse(s) was asked to instruct the staff to fill in the BLRI before filling in the WAS. An additional supply of forms was given to the charge nurse(s) (or ward sister) in programmes A, C and D, and to the consultant psychiatrist in programme E. These additional forms were for staff (particularly night staff) who were unable to attend the meeting. In the case of programmes A through D, those staff who could not attend the meeting left their completed forms in a large envelope in the duty station. In the case of

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<sup>1</sup>See footnote on page 135.

programme E, the forms were collected by the author, at the clinic. In several instances, staff had to leave the meeting early and were thus unable to complete their forms during the scheduled time. When this happened, they were asked to complete their forms and return them to either the duty station or the author.

New staff, particularly students, presented a problem. They had often spent only a few days in the programme at the time the second meeting was held. Since a major function of the research was to assess perceptions of the treatment environment, it was necessary to allow staff to be in the programme long enough to form an impression of (or to become conversant with) the programme. It was thought that three weeks of working in the treatment programme would be the minimum time necessary to form an impression about the treatment atmosphere. If, at the time of the meeting, the staff member was working in the programme for less than three weeks, he or she was asked to complete the instruments during his or her third week of work. Any forms containing more than 10 percent unanswered items were rejected because of insufficient information. This was consistent with Moos's (1974) suggestions. Those forms that were rejected were not entered into the data analysis. If a form contained less than 10 percent uncompleted items, then all the unanswered items were assigned a score between the two extreme values for that item.

### Section 9.6. Administration of Research Instruments to Patients

All patient data were collected between May 1974 and April 1975. It was decided that only male patients would be interviewed for the research, as the small number of female patients did not make it practical to include them. All patients were interviewed (whenever possible) up to two days following their admission as inpatients, or by their fifth visit as outpatients.

Wherever possible (sometimes staff were not available), the researcher was introduced to the patient by a staff member of the programme. It was thought that this might be less anxiety-provoking for the patient than if the patient were approached without a staff member being present. It was also thought that an introduction by a staff member would add more weight or "authenticity" to the request. In programmes A through D, the author was introduced in the following manner:

Here is Mr. Fischer, a psychologist from Edinburgh University. He would like to spend a little time with you and ask you some questions.

There were slight differences in wording, depending on the staff member making the introduction. It is important to note that, because of the staff shortage and general hostility of the staff in programme B toward the research, the interviewer was often left to seek the patient himself. Because of the poor administration and disorganisation of programme E, it was sometimes not possible to have a staff member make the initial introduction.

Upon meeting the patient, the author introduced



himself in the following manner:

Hello. I am Mr. Fischer. I am working in conjunction with the Edinburgh University Department of Social Administration. We are conducting a special research project to see how persons with drinking problems are getting along, and how they feel about the ward (or programme) they are in.

The research project will consist of three interviews--one today, one a week from today, and one ten weeks after you get out of hospital.

The project is completely independent of hospital staff. It will not influence any decisions that they make, nor will any of the forms be shown to the staff. All answers are completely confidential.

If you wish to cooperate in the research project, you will be sent a letter to come in for another appointment. You will receive the letter about six weeks after leaving the hospital and you will be asked to come for an appointment ten weeks after discharge.

We will also be needing the name of a friend or relative who knows you well and the name of your GP. We might contact these people to see how you are getting on.

Do you wish to cooperate? Good, now we will start.

For patients in programme E (the outpatient programme), paragraph two of the instructions was changed as follows:

The research project will consist of three interviews--one today, one three weeks from today, and one ten weeks after that.

The second sentence in paragraph four was changed to:

You will receive the letter about six weeks after the second appointment and you will be asked to come for an appointment four weeks after receiving the letter.

Unlike the staff, who were asked to fill in the forms, all the patient data were gathered by an interview. After speaking with the consultants and treatment staff, it was decided that two days following the admission would be the minimum time necessary to insure that the withdrawal symptoms had lessened to the extent that patients could be interviewed and understand what was being asked. In the case of programme E, no patient was interviewed who

arrived intoxicated and, furthermore, no patient was interviewed if the clinic staff judged him incapable of comprehending the questions because of his drinking problem.

During the time of the initial interview (admission interview), all questions on the Evaluation Project Form were asked, with the exception of questions 75-77 and 104-143<sup>1</sup>. Patients were instructed to answer all questions based on their feelings at the time of the interview, except for questions 85-103, which were asked to be answered on the basis of the memory of their feelings in the week prior to admission, or, in the case of programme E, the week prior to their first attendance at the clinic. First attendance meant the time of the initial interview. If the patient attended programme E prior to the initial interview, first attendance was taken as the first time the patient attended the clinic during the four weeks prior to the initial interview. This avoided the problem of patients whose attendance had lapsed for several months. This procedure was done in an attempt to prevent unrealistic perceptions from biasing the patient's responses, in that very often a patient, who immediately enters treatment, reports that he has lost all desire to drink. This seems unrealistic, since reports from recovered alcoholics often indicate that the desire to drink lasts for some time.

After the initial interview, the patient's occupation (question 25) was assigned to one of five social class categories, based on the Registrar General's

<sup>1</sup>Questions 104-143 refer to WAS or COPES items (see forms C and D in appendix A). When the COPES was given, it would be questions 104-142, as it had one less item than the WAS.

classification of occupations. During the course of the first interview, the patient's recent drinking was assessed on the following three-point scale (question 74):

3=Entirely abstinent for the ten weeks prior to admission, or ten weeks prior to the first attendance at programme E

2=Drinking, but not on the day of admission, or on the day of first attendance at programme E

1=Drinking, and drinking on the day of admission, or day of first attendance at programme E

On the surface, it might appear that this three-point scale is very brief, yet Willems et al. (1973a, 1973b) argue that a three-point scale, with abstinence clearly defined (in terms of no drinking), seems preferable to a scale with a greater number of points, where abstinence is qualified in terms of number of lapses; e.g., abstinence, abstinence with one lapse, abstinence with two lapses, etc. This makes for greater clarity and less ambiguity. Additionally, a smaller number of categories reduces the possibility that categories will have to be combined in order to insure that each category has enough subjects to permit analysis of the data (Siegel, 1956).

The timing of the second interview (discharge interview) was seen as being critical. Enough time needed to be allowed between the first and second interviews in order for patients to form perceptions about their treatment programmes. If too much time were allowed between interviews, too many patients would be "lost" (discharged before the second interview), and hence not included in the study. It was thought that a minimum of ten days as

an inpatient (including the day of admission) and three weeks as an outpatient would be necessary, in order to allow patients sufficient time to become conversant with their programmes. Three weeks of outpatient treatment was thought to be roughly equal, in terms of exposure to the programme, to ten days of inpatient contact. During this three-week period, there were nine possible sessions (six group sessions and three lectures) that the subject in treatment programme E could have attended. In order for a second interview to be scheduled, the patient had to attend at least three of the six possible group meetings. This insured that the patient in programme E had some idea about the treatment programme and helped "weed out" those patients who only attended once, looking for a quick cure, or in response to outside pressure.

The following questions were asked during the second interview: 1-4, 14-21, 26-57 and 84-143.<sup>1</sup> At first glance, one might wonder why questions 14-21 would be asked again during the second interview, as there would be no change in a subject's employment status during the time of hospitalisation and little possibility of change of employment status for outpatients in programme E. These questions were asked again because the research was

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<sup>1</sup>The patient's discharge status (question 77) was noted at the time of the second interview. If patients remained in treatment long enough to have a second interview, they were assigned a value of 1 for their discharge status. Otherwise, a value of 2 was assigned. The discharge status, although assessed at the time of the second interview, was coded on the form used to collect admission interview data, as it was not practical to code this onto an interview schedule normally used to collect discharge interview data, if the patient did not have a discharge interview.

interested in assessing the changes in patients' perception of their employment functioning, rather than merely assessing changes in the patient's actual employment functioning.

The third interview (follow-up interview) was scheduled for ten weeks after discharge from the hospital or, in the case of outpatients, ten weeks after the second interview. A letter was sent to each patient who had already been interviewed twice. The date, time and location of the third interview were indicated in the letter. Patients were instructed to return a stamped postcard only if they were unable to attend the appointment as scheduled in the letter. If the patient did not return the postcard, it was assumed that the appointment was satisfactory as scheduled. Copies of the letter and postcard appear in appendix A.

If a patient failed to attend the follow-up interview, he was called at home and interviewed by telephone. If this was not possible, then the patient's GP was contacted to ascertain whether or not the patient had returned to drinking. In many cases, the GP had no knowledge about the patient's drinking behaviour. In these instances a spouse or "significant other" was contacted, as well as the staff from the treatment programme in which the patient had received treatment. It was recognised that these alternative contacts could not provide complete follow-up information. In many cases, they were merely able to indicate whether or not the patient had returned to drinking. In some instances, however, these

auxiliary contacts were also able to indicate the frequency of drinking. Although these auxiliary contacts were only able to supply partial information about the patient, it was felt that partial information was better than no information; particularly, when the information supplied concerned whether or not the patient had returned to drinking.

In the main, the follow-up interview was similar to the second interview. Questions 63<sup>1</sup> and 68-76 were added, while questions 104-143 were deleted. Subjects were reminded to answer all questions based on their feelings at the time of the interview, except questions 63 and 68-73, which pertained to the entire follow-up period.

The coding of the patient's drinking status (question 74) at the time of the third interview presented problems because of the substantial number of patients who failed to attend the third interview. If a patient attended the follow-up interview, information on his drinking status was coded in the following manner:

3=Totally abstinent during the entire follow-up period, and not drinking on the day of the interview

2=Having at least one drink during the follow-up period, but not drinking on the day of the interview

1=Having at least one drink during the follow-up period, and having a drink on the day of the interview

If the patient failed to attend the follow-up appointment, assessment was made on the following basis:

A patient was assigned to category three if either the agency that he attended, his GP, or a significant other reported that the patient remained sober during the entire ten-week follow-up period.

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<sup>1</sup>See appendix B.



A patient was assigned to category two if any of the above persons or contacts reported a resumption of drinking during the follow-up period.

A patient was assigned to category one if a resumption of drinking was indicated and if any of the following were also indicated: a) discharge from the treatment programme because of drinking; b) daily drinking; c) steady or extremely heavy drinking; and d) readmission to the hospital during the follow-up period, or, in the case of patients in programme E, admission to the hospital during the follow-up period for drinking or drinking-related problems.

It was felt that this latter means of classification was quite similar to the one used if a patient had kept his appointment for the third interview. Exact similarity was impossible owing to the different ways in which the data were collected. We also obtained from the patient's treatment programme (from agency records) the number of times a patient attended treatment following discharge or the second interview. If there was any difference between the patient's report of the number of sessions attended and the agencies, the figure taken from the agency was the one used in the data analysis.

There were some problems posed by having more than one programme in the same hospital (programmes A, C and D). In three instances, patients who had two interviews in either programme C or D were transferred to programme A. Since these patients had already been interviewed twice, it seemed more practical to include them as subjects in programme C or D, rather than programme A. This was done for two reasons. Firstly, it was thought that two additional interviews would be stressful to the patient. Secondly, the number of patients in programmes C and D (relative to A and B) was quite small and it would not

have been wise to lose any of the subjects due to internal hospital transfers. Similarly, although patients in programme B were encouraged to attend programme E after discharge, they were still coded as programme B patients, as the first two interviews had taken place in programme B.

There were three irregularities concerning inclusion in the study. One patient in programme B had to be dropped because a second interview could not be arranged. Another patient had an initial interview in programme E and attended as an outpatient for two of the three weeks normally needed for inclusion in the study, before being transferred to programme B. After being discharged from two weeks in programme B, the patient continued to attend programme E. Because of the relatively low number of patients in the sample from this programme, it was decided to retain the subject in the study as a programme E patient. The second interview was completed as soon as he returned to programme E. The third patient (also from programme E) had completed all three interviews. Six weeks after completing the follow-up interview, the patient was admitted to programme B. This patient was also included as a programme B patient, because complete information had already been obtained regarding his attendance in programme E. Moreover, programme B was sufficiently different from programme E to make his inclusion meaningful.

### Section 9.7. Limitations of the Study

Unless one has a full compliment of researchers and financial resources, one cannot escape making compromises in the research design. The limited financial resources available to the author made it necessary to limit the size of the study. The main problem was the high cost, per week, of collecting the data, coupled with the fact that the number of subjects increased much more slowly than anticipated. This made it necessary to limit the size of the sample to one hundred "usable" patients. A "usable" patient is defined as one who has completed both the first and second interviews. Given this limitation, we had ideally wanted to collect an equal number of patients, i.e., twenty, from each treatment programme. The slowness with which the "usable" patients were obtained from programmes C, D and E made this goal impossible. After six months of conducting initial interviews, programmes C and D combined yielded only twelve patients. Clearly, it would have been impossible, under these circumstances, to continue interviewing patients until programmes C and D each yielded twenty patients. It was decided, therefore, to continue interviewing patients until a total of one hundred subjects had been reached, who had completed both first and second interviews. Although this resulted in a disproportionately represented sample (i.e., programmes A and B having a larger sample than the rest), it did not seem possible to develop any other solution, given the limitations discussed earlier.

It was felt that having a population of one hundred subjects, although disproportionately represented, would be preferable to a smaller sample with an equal number of subjects in each programme.

There were also difficulties imposed by unplanned events. Hospitalisation of the researcher necessitated postponement of the first twenty follow-up interviews for between four and six weeks. Fifteen more interviews had to be postponed because of scheduling difficulties. The second group of interviews had to be postponed for a much shorter time (one-to-two weeks). Seven more interviews had to be rescheduled because of patients' failure to keep their appointments.<sup>1</sup> One patient was considered usable, even though he had not attended programme E for three weeks between the first and second interviews, when it was learned that a bus strike of suburban services in Glasgow meant that he was unable to attend the clinic. Since he resumed attendance immediately following the strike and continued thereafter, it was decided to include the patient in the sample. As mentioned earlier, programme E underwent a reorganisation in the beginning of September. It was not possible to estimate the extent to which patients' perceptions of the treatment programme were affected by the changes in programme organisation. Since one could not prevent the changes from taking place, one must be resigned to the possibility of contamination and interpret the data with increased caution.

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<sup>1</sup>In the case of rescheduled interviews the follow-up period was considered to be the ten weeks prior to the rescheduled interview.

Lastly, certain limitations were imposed by the way staff data were collected. As described earlier, meetings were scheduled so that staff could fill in the forms under similar conditions. The fact that several staff members could not attend their respective meetings made this standardisation impossible. The staff sample might also be slightly unrepresentative, since it lacked most of the night staff. Because there was only one researcher with limited financial resources, one must accept the above limitations as being difficult to rectify or avoid.

#### Section 9.8. Hypothesis

There seem to be several major trends emerging from an examination of the literature. The following points can be noted, which will help to place the hypothesis in a clearer perspective.

It is clear, from a review of the literature, that treatment programmes are not uniformly effective. The main difference seems to be between specialised and non-specialised treatment. It is also apparent that the criteria upon which treatment effectiveness has been based have usually concerned drinking behaviour. We must broaden our perspective to include changes in other areas as well.

The way in which staff relate to patients, as measured by the amount of empathy, warmth, acceptance and self-disclosure they show toward patients, seems to be an important determinant of treatment outcome. Given research showing the importance of these staff qualities in the treatment of other psychiatric patients, it would seem

prudent to see whether or not these factors are important determinants of treatment outcome for alcoholic patients. There is also evidence to suggest that the qualities of empathy, warmth, acceptance and self-disclosure might be interrelated and that there might be one factor underlying all of these staff qualities. If this is the case, perhaps we should question whether the one underlying factor (if it exists) might also be related to treatment outcome.

There is a considerable amount of evidence to suggest that the psycho-social milieu of a treatment programme can be adequately assessed using paper-and-pencil techniques. Furthermore, the evidence suggests that milieu perception of patients and staff is related to treatment outcome and that patient and staff milieu perceptions have a definite (although sometimes different) underlying dimensional structure. Since almost all of the above work has not been done with alcoholic treatment programmes, it would be important to extend this type of research to the area of alcoholism treatment. In light of the summary just presented, along with the supporting evidence noted in previous chapters, the present study was designed to test the following hypothesis:

Hypothesis 1A: The WAS(COPES) is capable of discriminating between perceptions of alcoholism treatment milieu held by staff on treatment programmes which show prima facie differences from each other.

Hypothesis 1B: The WAS(COPES) is capable of discriminating between perceptions of alcoholism treatment milieu held by patients on treatment programmes which show prima facie differences from each other.

The importance of the treatment milieu has already been extensively indicated with respect to other psychiatric



populations. If we are going to pursue research in the area of milieu in relation to alcoholism treatment, it is therefore important to have an instrument for assessing the milieu (the WAS or COPES in the case of the present research) that is capable of indicating known differences between the treatment milieus, in terms of the ten WAS (COPES) dimensions. These are Involvement, Support, Spontaneity, Autonomy, Practical Orientation, Personal Problem Orientation, Anger and Aggression, Order and Organization, Program Clarity, and Staff Control.

Hypothesis 2A: The WAS(COPES) for staff in the five alcoholism treatment programmes will show a three-dimensional structure, corresponding to Relationship, Personal Development and Systems Maintenance-Systems Change, when the staff responses are subjected to a principal component factor analysis.

Hypothesis 2B: The WAS(COPES) for patients in the five alcoholism treatment programmes will show a three-dimensional structure, corresponding to Relationship, Personal Development and Systems Maintenance-Systems Change, when the patient responses are subjected to a principal component factor analysis.

Moos (1974) hypothesized the existence of a three-dimensional structure underlying subjects' milieu perceptions, based on the WAS or COPES assessment of treatment milieu. The three dimensions are a Relationship dimension, a Personal Development dimension and a Systems Maintenance-Systems Change dimension. It was further noted that the three dimensions were rationally, rather than empirically, derived. If Moos's hypothesis is correct, then the basic three dimensions already mentioned should emerge when the data are subjected to the empirically-based principal components factor analysis, given the assumption that

alcoholic patients share some similarity with other psychiatric patients.

Hypothesis 3: The BLRI subscale scores are capable of discriminating between the perceptions of staff regarding their relationship to patients on treatment programmes which show prima facie differences in the manner in which staff relate to patients.

Before we can assess whether staff-patient relationships make any contribution to alcoholism treatment outcome, we must first see that the instrument used to assess staff-patient relationships is capable of discriminating between programme differences in relation to how staff relate to patients, or in the case of the present study, the perceptions of the staff regarding their relationship to patients.

Hypothesis 4: The staff responses to the BLRI will reveal a unidimensional structure, when subjected to principal component factor analysis.

Previous research has shown the possibility of a single dimension underlying how staff relate to patients. The present study is retesting this hypothesis in relation to how staff relate to alcoholic patients. If the data support the existence of an underlying factor, the research can subsequently see whether this underlying factor is related to treatment outcome.

Hypothesis 5: There is a significant negative correlation between staff BLRI subscale scores and their WAS or COPES subscale scores.

Sideman and Moos (1973) maintained that different treatment milieux lead to differing treatment effects, because they create varying conditions from which different

styles of helping behaviour can emerge. It is also possible that different styles of helping behaviour might serve to determine milieu perceptions. Although milieu perception and staff behaviour appear to be related, we cannot, at this time, definitely specify the direction of the relationship. The negative correlation between WAS and BLRI subscale scores is accounted for by the opposite direction of their respective scoring. In other words, while it would be likely that the more positive a staff member perceives his relationship to patients to be, the more positive should be his perception of the treatment milieu. Yet, a more positive milieu perception is indicated by a higher score on WAS(COPES) subscales, and a more positive perception of staff-patient relationships is indicated by a lower score on the BLRI subscales--hence the negative correlation between the subscales of the WAS (COPES) and BLRI.

Hypothesis 6A: Taking each treatment programme separately, patients will demonstrate a significant improvement in social functioning, as measured by the CAS subscales, and a significant decrease in orientation toward alcohol, as measured by the P and R Alcadd subscales, between the admission and discharge interviews.

Hypothesis 6B: Taking each treatment programme separately, patients will demonstrate a significant improvement in social functioning, as measured by the CAS subscales, and a significant decrease in orientation toward alcohol, as measured by the P and R Alcadd subscales, between the admission and follow-up interviews.

Hypothesis 6C: Taking each treatment programme separately, patients will demonstrate a significant improvement in social functioning, as measured by the CAS subscales, and a significant decrease in orientation toward alcohol, as measured by the P and R Alcadd subscales, between the discharge and follow-up interviews.

An increase in patients' social functioning and a

decrease in their orientation toward alcohol are seen, in the context of the present study, as goals of treatment and, therefore, serve as an indicator of treatment effectiveness. Most of the studies already cited have focused on changes between admission and follow-up interviews, if they have focused on changes at all. We have already noted the need to move beyond this--to consider changes that take place between admission and discharge and between discharge and follow-up, as well as those between admission and follow-up. It is hoped that this will provide a better understanding of the treatment process.

Hypothesis 7A: There is a significant positive relationship between patients' perception of the treatment milieu, as measured by WAS(COPES) subscale scores, and changes in CAS subscale scores, between the admission and follow-up interviews.

Hypothesis 7B: There is a significant negative relationship between patients' perception of the treatment milieu, as measured by WAS(COPES) subscale scores, and changes in P and R Alcadd subscale scores, between the admission and follow-up interviews.

Hypothesis 7C: There is a significant positive relationship between patients' perception of the treatment milieu, as measured by WAS(COPES) subscale scores, and changes in CAS subscale scores, between the discharge and follow-up interviews.

Hypothesis 7D: There is a significant negative relationship between patients' perception of the treatment milieu, as measured by WAS(COPES) subscale scores, and changes in P and R Alcadd subscale scores, between the discharge and follow-up interviews.

Hypothesis 7E: There is an association between patients' perception of the treatment milieu, as measured by WAS (COPES) subscale scores, and the extent to which they show an increase in drinking status index scores, between the admission and follow-up interviews.

Prior research has shown there is a positive correlation between WAS(COPES) subscale scores and favourable treatment outcome. If one attempted to apply this to the

present research, one could say that there should be a positive relationship between WAS(COPES) subscale scores, increases in social functioning, and decreases in orientation toward alcohol, as well as an association between positive change in the patient's drinking status index score and WAS(COPES) subscale scores. The presence of a negative correlation between patient WAS(COPES) subscale scores and changes in Alcadd subscale scores results from the fact that changes in Alcadd scores should move from a higher to a lower score, indicating a reduction in orientation toward alcohol, and hence a favourable treatment outcome, which the computer interprets as lower numbers.

Hypothesis 8A: There is an association between a programme's score on staff WAS(COPES) subscales and the extent to which patients increase in CAS subscale scores and decline in P and R Alcadd subscale scores, between the admission and follow-up interviews.

Hypothesis 8B: There is an association between a programme's score on staff WAS(COPES) subscales and the extent to which patients increase in CAS subscale scores and decrease in P and R Alcadd subscale scores, between the discharge and follow-up interviews.

Hypothesis 8C: There is an association between a programme's score on staff WAS(COPES) subscales and the extent to which patients increase in drinking status index scores, between the admission and follow-up interviews.

Hypothesis 8D: There is an association between a programme's score on the BLRI subscales and the extent to which patients increase in CAS subscale scores and decrease in P and R Alcadd subscale scores, between the admission and follow-up interviews.

Hypothesis 8E: There is an association between a programme's score on the BLRI subscales and the extent to which patients increase in CAS subscale scores and decrease in P and R Alcadd subscale scores, between the discharge and follow-up interviews.

Hypothesis 8F: There is an association between a programme's score on the BLRI subscales and the extent to

which patients increase in drinking status index scores, between admission and follow-up interviews.

We have already seen that staff-patient relationships and staff milieu perceptions contribute toward treatment outcome. The preceding five hypotheses are an attempt to extend this type of inquiry to the present study, which assesses treatment outcome in terms of increase in CAS subscale scores, decrease in Alcadd subscale scores and improvement (from lower to higher) drinking status index scores.



PART THREE

ANALYSIS OF STAFF DATA

## CHAPTER 10

### Staff Perceptions of the Treatment Milieu

#### Section 10.1. Introduction

It has already been indicated that the present study will assess psycho-social aspects of the treatment milieu, using paper-and-pencil techniques. This chapter provides a detailed analysis of the responses of seventy-eight staff members, in five treatment programmes, to the WAS and COPES. The WAS is used in the present study to measure the subjects' perceptions of the treatment milieu of inpatient programmes, while the COPES is similarly used in the outpatient treatment programme. Assessing milieu from subjects' perceptions is based on the assumption that subjects' perceptions provide a reasonable indication of the actual milieu within a treatment programme. Furthermore, we are hypothesizing that subjects' milieu perceptions contribute to treatment outcome.

#### Section 10.2. Demographic Characteristics of the Total Staff Population

For the purposes of the present study, the words "total staff" are defined as the number of staff, during the time of the data collection, to satisfactorily complete both the WAS(COPES) and the BLRI. As mentioned earlier, satisfactory completion of these instruments is

taken to mean that not more than 10 percent of the itmes have been omitted. Staff subjects (seven), who did not satisfactorily complete the forms, were not included in the sample. The demographic characteristics of the total staff sample are given in table 10.1.

TABLE 10.1.--Demographic Characteristics of the Staff

<u>Sex:</u>	
Male . . . . .	43
Female . . . . .	30
Not indicated. . . . .	5
<u>Staff Position:</u>	
Psychiatrist . . . . .	11
Charge Nurse or Ward Sister. . . . .	11
Social Worker. . . . .	3
Nurse. . . . .	12
Psychologist . . . . .	2
Occupational or Physical Therapist. . . . .	4
Student. . . . .	17
Other. . . . .	9
Not indicated. . . . .	9
<u>Mean Work Experience (in months)</u>	
<u>in Present Treatment Programme</u>	18.18
<u>Mean Total Work Experience</u>	
<u>(in months) with Alcoholics</u>	37.38

It is apparent from table 10.1 that "student" is the largest category of staff position. Because of this, it was decided to limit the period during which staff data were collected. Otherwise, the number of students relative to the number of other staff would have increased, because the students generally stayed within one particular treatment programme for a much shorter period of time than did other members of staff. It is also apparent that many of the staff had some treatment contact with alcoholic patients before working in the treatment programmes

within the present study. A median test (Siegel, 1956) showed no significant association between the sex of the staff member and the length of time worked in the treatment programme, or the length of time worked with alcoholic patients. It was not possible to perform a chi-square analysis for association between the staff member's position and either the length of time worked in the treatment programme or the length of time worked with alcoholics, as the expected frequencies, within each cell of the chi-square contingency table, would have been below the minimum requirement (Siegel, 1956) in several instances.

Section 10.3. Demographic  
Characteristics of Staff  
for Each Treatment Programme

Table 10.2 gives demographic characteristics for each of the five treatment programmes.

TABLE 10.2.--Demographic Characteristics for Each Treatment Programme

	Treatment Programme				
	A	B	C	D	E
<u>Number of Staff</u>	17	19	20	14	8
<u>Staff Position</u>					
Psychiatrist	3	1	3	2	2
Charge Nurse or					
Ward Sister	4	3	3	1	0
Social Worker	0	1	1	0	1
Nurse	1	8	1	2	0
Psychologist	1	0	1	0	0
Occupational or					
Physical Therapist	1	1	1	1	0
Student	3	4	5	5	0
Other	1	0	3	0	5
Not indicated	3	1	2	3	0
<u>Sex</u>					
Male	6	11	12	9	5
Female	8	7	8	4	3
Not indicated	3	1	0	1	0

A one-way analysis of variance found no significant difference between either the mean time (in months) worked in the treatment programme or the mean time (in months) worked with alcoholics, between the treatment programmes. Because of small expected frequencies (Siegel, 1956), it was not possible to see whether there was any difference between the treatment programmes in the distribution of staff position or the sex of the staff member.

#### Section 10.4. Staff Perceptions of the Treatment Milieu for the Total Staff Population

As mentioned before, the staff perceptions of the treatment milieu will be assessed by either a modified version of the Ward Atmosphere Scale (WAS), in the case of inpatient programmes (programmes A through D), or the Community Oriented Program Environment Scale (COPES), in the case of the outpatient programme (programme E). Both instruments have the same subscales. For a detailed description of the WAS and COPES, see chapter 9.

The mean staff responses to the WAS(COPES) and standard deviations for the total staff population are presented in table 10.3.

A Kendall rank correlation analysis was performed for the seventy staff members for whom complete demographic information was available, in order to see whether or not there was a relationship between how the subject perceived the treatment milieu and the length of time (in months) the subjects worked either with alcoholic patients or in the treatment programme. Kendall's rank correlation

TABLE 10.3.--Mean Staff WAS(COPES) Subscale Scores and Standard Deviations for the Total Staff Population

N=78

Subscale	Mean	S.D.
Involvement (I)	2.58	1.28
Support (S)	2.80	1.00
Spontaneity (SP)	2.71	1.21
Autonomy (AUT)	2.19	1.15
Practical Orientation (PO)	2.79	1.23
Personal Problem Orientation (PPO)	2.68	1.24
Anger and Aggression (AA)	2.69	1.20
Order and Organization (OO)	2.56	1.18
Program Clarity (PC)	2.83	1.05
Staff Control (SC)	1.11	0.93

coefficient (tau) was computed instead of the more usual Pearson product-moment coefficient, because it was felt that WAS or COPES subscale scores were not truly continuous, in that each possible subscale score was really only a five-point scale (i.e., values could range from zero to four). Values of tau (as were all statistics in the present research) were computed by the Statistical Package for the Social Sciences (SPSS) subprogram (Nie et al., 1970). The computation revealed two significant relationships. Time worked in the treatment programme was positively correlated with the staff member's score on the Autonomy subscale ( $r=.14$ ;  $N=68$ ;  $p<.05$ ) and negatively correlated ( $r=-.21$ ;  $N=68$ ;  $p<.01$ ) with the staff member's score on the Order and Organization subscale of the WAS(COPES). It is important to note that, although significant, the correlations were not very high and therefore would not seem to be important.

Staff scores for each of the WAS(COPES) subscales were divided into two groups, according to Siegel's (1956)



suggestion for a median test. The first group consisted of all subjects whose score was below the median score for the total staff population. The second group consisted of those subjects who were above the median score for the same population. A median test was computed with the frequencies in each of the two groups forming the row frequencies and the number of males and females forming the column frequencies. The results indicated that the numbers of male and female staff falling above and below the median WAS(COPES) subscale scores were not significantly different from each other, based on the value of chi-square. One might then conclude that the perception of the treatment atmosphere was independent of the staff member's sex.

Using the same method of analysis, a median test was performed comparing those subjects who omitted either their staff position, length of time worked in the treatment programme or length of time worked with alcoholics, with those staff who responded to these variables. The median test, previously described, revealed no significant association between a staff member's inclusion or omission of the demographic information and his or her corresponding WAS(COPES) subscale scores.

The WAS(COPES) subscale intercorrelations for the total staff populations are presented in table 10.4. Kendall's tau was computed because the data were not continuous.

TABLE 10.4.--WAS(COPES) Subscale Intercorrelation Coefficients (Tau) for the Total Staff Population (decimal points omitted)

N=78

	I	S	SP	AUT	PO	PPO	AA	OO	PC	SC
I										
S	23**									
SP	27**	39**								
AUT	28**	21**	33**							
PO	20**	39**	22**	39**						
PPO	27**	20**	19**	24**	15*					
AA	03	-04	-12*	07	05	19**				
OO	19**	27**	15*	00	24**	12*	22**			
PC	29**	35**	40**	23**	24**	07	-10	25**		
SC	-11	-27**	-38**	-12*	-19**	-14*	-07	-05	-15*	

\*p<.05

\*\*p<.01

Although the correlation coefficients in table 10.4 are highly significant, they are of relatively small magnitude. The WAS(COPES) subscales would therefore appear to be independent of each other.

#### Section 10.5. Staff Perception of the Treatment Milieu for Each Treatment Programme

This section will test the following hypothesis:

Hypothesis 1A: The WAS(COPES) is capable of discriminating between perceptions of alcoholism treatment milieu held by staff on treatment programmes which show prima facie differences from each other.

Table 10.5 presents the mean staff WAS(COPES) subscale scores and their corresponding standard deviations for each treatment programme. A visual inspection of table 10.5 shows differences in mean staff WAS(COPES) subscale scores between the treatment programmes. In order to confirm this observation, the data were subjected to a median test. For each WAS(COPES) subscale, staff

TABLE 10.5.--Mean Staff WAS(COPES) Subscale Scores and Standard Deviations for Each Treatment Programme

Subscale	Treatment Programme											
	A		B		C		D		E			
	N=17		N=19		N=20		N=14		N=8			
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
I	3.18	0.88	1.63	1.21	2.70	1.21	2.21	1.31	3.75	0.46		
S	2.65	1.27	2.47	0.84	3.30	0.92	2.82	0.82	2.62	0.95		
SP	2.56	1.20	2.63	1.16	2.60	1.27	3.21	1.19	2.62	1.30		
AUT	2.06	1.20	1.78	1.08	2.02	1.11	2.89	0.88	2.62	1.30		
PO	2.50	1.15	1.95	1.13	3.37	0.81	3.42	0.76	2.87	0.99		
PPO	3.82	0.39	1.74	1.24	2.90	1.07	2.64	1.22	2.00	0.76		
AA	3.18	0.95	1.79	1.18	2.80	1.15	3.00	1.11	3.00	1.07		
OO	2.76	0.75	2.24	1.16	2.92	1.26	2.64	1.15	1.87	1.55		
PC	2.76	1.03	2.74	1.10	2.85	1.14	2.79	0.97	3.25	1.03		
SC	0.88	0.48	1.66	1.25	0.85	0.81	0.93	0.92	1.25	0.71		

subjects were divided into two groups: those with subscale scores below the median for the total staff population and those with subscale scores above the median for the same population. The number of subjects above or below the median formed the row frequencies and the number of subjects in each treatment programme formed the column frequencies. This yielded a two-by-five contingency table for each subscale.

The rationale underlying this analysis is that, if the five treatment milieux were not seen as significantly different from each other, then all five treatment programmes would have the same median and, therefore, the same number of cases above and below the median. Any differences in the medians could be attributed to sampling error. If, however, distributions of subscale scores for the five treatment programmes were significantly different, then the medians would be different, so that the proportion of cases falling above and below the median for the entire population would not be the same. If this turned out to be the case, one could then conclude that treatment programmes were being perceived differently (for the particular subscale in question) by the staff in each treatment programme. The chi-square contingency tables for the WAS(COPES) subscales are presented in tables 10.6 through 10.15.

TABLE 10.6.--Chi-Square Table for the WAS(COPES)  
Involvement Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	3	14	9	7	0	33
Above Median	14	5	11	7	8	45
Total	17	19	20	14	8	78

$$x^2=18.16; \text{ d.f.}=4; p<.01$$

TABLE 10.7.--Chi-Square Table for the WAS(COPES)  
Support Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	6	10	4	6	6	32
Above Median	11	9	16	8	2	46
Total	17	19	20	14	8	78

$$x^2=8.78; \text{ d.f.}=4 \quad . \quad \text{NS}$$

TABLE 10.8.--Chi-Square Table for the WAS(COPES)  
Spontaneity Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	9	10	13	10	4	46
Above Median	8	9	7	4	4	32
Total	17	19	20	14	8	78

$$x^2=2.04; \text{ d.f.}=4 \quad . \quad \text{NS}$$

TABLE 10.9.--Chi-Square Table for the WAS(COPES)  
Autonomy Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	5	5	7	10	5	32
Above Median	12	14	13	4	3	46
Total	17	19	20	14	8	78

$$x^2=9.82; \text{ d.f.}=4; p<.05$$

TABLE 10.10.--Chi-Square Table for the WAS(COPES)  
Practical Orientation Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	8	12	2	2	2	26
Above Median	9	7	18	12	6	52
Total	17	19	20	14	8	78

$$x^2=16.48; \text{ d.f.}=4; p<.01$$

TABLE 10.11.--Chi-Square Table for the WAS(COPES)  
Personal Problem Orientation Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	0	14	6	6	6	32
Above Median	17	5	14	8	2	46
Total	17	19	20	14	8	78

$$x^2=25.04; \text{ d.f.}=4; p<.001$$

TABLE 10.12.--Chi-Square Table for the WAS(COPES)  
Anger and Aggression Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	4	13	7	3	2	29
Above Median	13	6	13	11	6	49
Total	17	19	20	14	8	78

$$x^2=11.33; \text{ d.f.}=4; p<.05$$

TABLE 10.13.--Chi-Square Table for the WAS(COPES)  
Order and Organization Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	7	11	6	7	6	37
Above Median	10	8	14	7	2	41
Total	17	19	20	14	8	78

$$x^2=6.01; \text{ d.f.}=4 \quad \text{NS}$$



TABLE 10.14.--Chi-Square Table for the WAS(COPES)  
Program Clarity Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	7	6	7	7	3	30
Above Median	10	13	13	7	5	48
Total	17	19	20	14	8	78
$\chi^2=1.32$ ; d.f.=4      NS						

TABLE 10.15.--Chi-Square Table for the WAS(COPES)  
Staff Control Subscale

	Programme					Total
	A	B	C	D	E	
Below Median	16	9	15	11	7	58
Above Median	1	10	5	3	1	20
Total	17	19	20	14	8	78
$\chi^2=11.60$ ; d.f.=4; $p<.05$						

It would appear from tables 10.6 through 10.15 that Hypothesis 1A is confirmed for the following WAS(COPES) subscales: Involvement, Autonomy, Practical Orientation, Personal Problem Orientation, Anger and Aggression, and Staff Control. The Support subscale approaches significance ( $p=.07$ ) in its ability to discriminate between the staff perceptions of the treatment milieu in the various programmes.

Given that the WAS(COPES) seems to be able to discriminate between the treatment programmes when all five programmes are considered simultaneously, it is interesting to isolate those programmes making the greatest contribution toward the overall significance. This is done by examining the differences between the observed and expected frequencies. The observed frequencies are those

that appear in the contingency tables (tables 10.6 through 10.15). The expected frequencies are obtained by dividing the product of the row totals and column totals by the total number of subjects. The larger the difference in observed-minus-expected frequencies from each cell in the chi-square table, the larger the contribution that particular cell is making to the total value of chi-square. If one makes a rough calculation of the difference between observed and expected frequencies for those subscales significantly able to discriminate between the five treatment programmes, one can see that Programmes A and B are generally contributing more to the total value of chi-square than are the cells from the other treatment programmes.

As mentioned earlier, the WAS(COPES) has not been developed explicitly for alcoholism treatment programmes. For this reason, we are also interested in examining the validity of the staff responses by seeing if the mean staff responses agree with what is known about each programme from a period of informal observation and discussion (see chapter 8). We will limit the discussion to those subscales that have been shown to discriminate significantly between the treatment programmes, as we are mainly interested, here, in the extent to which differences on the WAS(COPES) can be taken as valid indicators of differences in the treatment milieu of alcoholism treatment programmes. We can see from table 10.5 that the mean Involvement subscale score is highest for programmes A and E and lowest for programme B. This is

consistent with what was indicated about each programme in chapter 8. Both programmes A and E place a strong emphasis on becoming involved in treatment.

Staff in programme B, on the other hand, tend to leave patients to their own devices. The staff in programme B also tend to place little emphasis on patient autonomy. They tend not to view alcoholic patients in a very favourable light and feel that they are a potential disruption to the ward. It is not surprising, therefore, that staff in programme B have the lowest mean score on the Autonomy subscale of the WAS(COPES). Given that programme E is an outpatient programme, one might expect staff to place a considerable emphasis on patient autonomy. This is supported by their high score on the Autonomy subscale. It is more difficult to explain the high mean score of programme D on the Autonomy subscale, in that nothing in chapter 8 would seem to indicate this. We see from table 10.5 that programmes C and D score relatively higher on the Practical Orientation subscale. This would seem to make sense, since both wards are acute admission wards, which concentrate on preparing patients for return to the community. As mentioned before, patients in these two programmes receive a good deal of occupational therapy, which would seem to support the idea that both programmes are geared toward practical preparation for return to the community. The fact that the staff in programme B have the lowest score on the Practical Orientation subscale supports the observation, already made, that little is offered in the way of treatment to patients in this

programme. Programme A has the highest mean score on the Personal Problem Orientation subscale. This seems to be consistent with its high psychotherapeutic orientation, noted in chapter 8. Programmes C and D score fairly high on this aspect of milieu, relative to programmes B and E. We have already noted that both programmes run daily treatment groups for patients, which would be consistent with their relatively high scores on this WAS(COPES) subscale. Again, programme B scores low on this subscale, which is in agreement with the fact that little treatment is provided in this programme. The staff in programme A score highest on the Anger and Aggression subscale. This is consistent with the programme's high psychotherapeutic orientation, which has already been mentioned. It has been noted that the staff in programme E encourage patients to express feelings and to make a contribution to, or join in, their (the patients') groups. The high score of the staff on this subscale seems to be consistent with these observations.

Staff in programme B score the highest (relative to other treatment programmes) on the Staff Control subscale. This seems to agree with the observation that staff in programme B tend to see patients as a potential disruption to the smooth running of the ward. The relatively high score on this subscale of the staff in programme E can best be understood by the fact that there is an overlap in some of the staff between the two programmes; some of the staff in programme E have worked in, or have been patients (now recovered alcoholics) in, programme B.

The above discussion of mean staff WAS(COPES) subscale scores, in table 10.5, indicates that the WAS(COPES) for staff subjects does have a high degree of face validity, in that scores on the WAS(COPES) do tend to agree with observations made of the treatment milieu.

#### Section 10.6. Principal Component Analysis of Staff Milieu Perceptions

Moos (1974) has hypothesized the existence of a three-dimensional structure for both the WAS and COPES. As mentioned earlier, the first dimension, called the Relationship dimension, includes the Involvement, Support and Spontaneity subscales. The second dimension, the Personal Development dimension, includes the Autonomy, Practical Orientation, Personal Problem Orientation, and Anger and Aggression subscales. Moos's third dimension is the Systems Maintenance-Systems Change dimension; it includes the Order and Organization, Program Clarity and Staff Control subscales. This dimensional structure was derived prima facie theoretical assumptions, based on a wide variety of treatment programmes. It would be interesting to note whether Moos's assumptions regarding a three-dimensional structure are also applicable to alcoholism treatment milieux. This section will test the following:

Hypothesis 2A: The WAS(COPES) for staff in the five alcoholism treatment programmes will show a three-dimensional structure, corresponding to Relationship, Personal Development and Systems Maintenance-Systems Change, when the staff responses are subjected to a principal component factor analysis.

Principal component analysis was chosen over other methods of factor analysis because it makes fewer

assumptions about the data. Principal component analysis also has the advantage of being an exact mathematical transformation of the data, such that the solution will account for more of the variance. The principal components solution in the present study was based on a matrix of Kendall's tau, which has already been presented in section 10.2. This subscale intercorrelation matrix was used instead of the more usual product-moment matrix, since the data were thought not to be truly continuous. Phillips (1966) has indicated that it is possible to use other types of correlation matrices than the product-moment type, in factor-analytic techniques.

A principal component analysis of staff WAS(COPES) subscale scores revealed three components with an eigenvalue of greater than 1.0, accounting for 52.9 percent of the variance. Retaining components with eigenvalues of 1.0 or greater is an arbitrary decision that ensures that trivial components (those accounting for less than the total variance divided by the total number of possible components) will not be retained. The three principal components were subjected to varimax rotation, so as to make them more interpretable. Briefly stated, rotation attempts to move the axis through numerical space such that a variable loads highest on one component and low on others. The process will usually, but not invariably, eliminate many of the negative loadings, as well. The varimax-rotated factor loadings for the principal component analysis of the staff responses to the WAS(COPES) are presented in table 10.16.



TABLE 10.16.--Varimax-Rotated Principal Component Loadings for Staff WAS(COPES) Subscale Scores

N=78

WAS(COPES) Subscale	Principal Component Loadings		
	Component 1	Component 2	Component 3
I	.61486	.06912	.26375
S	.32203	.51771	.34941
SP	.19083	.74304	.21317
AUT	.60889	.27357	-.01924
PO	.52079	.28475	.22639
PPO	.68993	.03135	-.10698
AA	.42563	-.07133	-.66358
OO	.20596	-.02656	.74458
PC	.23709	.41802	.48273
SC	-.02392	-.80537	.19492

Looking at all loadings with an absolute value of 0.45 or higher, the first component loads highest on Involvement, Autonomy, Practical Orientation, and Personal Problem Orientation. It would seem to include those subscales that assess aspects of treatment that might be important in the alcoholism recovery process. It was, therefore, labelled a Patient-Centred component. The second component loads highest on Spontaneity, Support, and low Staff Control. This would seem to include those aspects of milieu necessary to encourage the spontaneous expression of feeling. The second component was, therefore, labelled a Spontaneous Feeling Expression component. The third component loads highest on Order and Organization, Program Clarity and low Anger and Aggression. These would seem to be elements of the treatment atmosphere that are necessary if staff are to maintain control and avoid disruptive outbursts. This last component was, therefore, interpreted as a Staff-Centred dimension.

If we examine the subscales loading highest on each of the components, we see that component 1, the Patient-Centred component, corresponds to Moos's hypothetical Personal Development dimension, which includes the Autonomy, Practical Orientation, Personal Problem Orientation, and Anger and Aggression subscales. Only the Anger and Aggression subscale is not common to both the Patient-Centred component and Moos's Personal Development dimension. Moos's Relationship dimension, which includes the first three WAS(COPES) subscales, is similar to component 2 (Spontaneous Feeling Expression) of the present study. Moos's third dimension, Systems Maintenance-Systems Change, which includes the Order and Organization, Program Clarity, and Staff Control subscales, is similar to component 3 (Staff-Centred) of the present study. We can, therefore, conclude that Moos's hypothetical structure is similar to the structure emerging from a principal component analysis of the staff WAS(COPES) subscale scores. Hypothesis 2A is therefore confirmed.

Factor scores were computed for each subject, according to the suggestions of Nie et al. (1970). Factor scores were then transformed, according to the suggestion of Ferguson (1964), to have a mean of 50 and a standard deviation of 15, for the total staff population. This was done to eliminate the presence of negative numbers. A one-way analysis of variance was performed, comparing the mean factor scores for each treatment programme on each of the components. The means and standard deviations are presented in table 10.17.

TABLE 10.17.--Means and Standard Deviations for Factor Scores on Components for Each Treatment Programme

Treatment Programme										
Component	A N=17		B N=19		C N=20		D N=14		E N=8	
	M	SD	M	SD	M	SD	M	SD	M	SD
One(Patient-Centred)	58.45	12.60	34.18	11.57	53.81	14.46	53.36	11.33	54.21	5.09
Two(Spon. Express.)	46.85	10.48	47.15	20.20	51.52	13.66	55.90	14.92	49.34	11.47
Three(Staff-Centred)	46.05	10.32	53.86	15.12	54.90	14.78	43.78	16.10	47.86	18.44

The results from the one-way analysis of variance indicated that only component 1 (Patient-Centred)<sup>1</sup> was capable of discriminating between the five treatment programmes. It is not surprising that the Patient-Centred component is able to discriminate between the treatment programmes, given that this component loaded highest on four of the six WAS(COPES) subscales that showed an ability to discriminate between the treatment programmes, and that principal component analysis provides a solution that is an exact mathematical transformation of the data.

#### Section 10.7. Summary

Staff responses to the WAS(COPES) proved, generally, to be independent of staff demographic characteristics. The WAS(COPES) subscales were also seen not to be highly interrelated. The following WAS(COPES) subscales were shown to discriminate between the perceptions of alcoholism treatment milieu held by staff on treatment programmes which showed prima facie differences from each other: Involvement, Autonomy, Practical Orientation, Personal Problem Orientation, Anger and Aggression, and Staff Control. Hypothesis 1A is confirmed for the above WAS(COPES) subscales.

A principal component analysis of staff WAS(COPES) subscale scores revealed three components, which were labelled Patient-Centred, Spontaneous Feeling Expression and Staff-Centred. These corresponded to Moos's three dimensions, called Relationship, Personal Development and Systems Maintenance-Systems Change. Hypothesis 2A

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<sup>1</sup>F=11.11; between groups d.f.=4, within groups d.f.=73; p<.01

was therefore confirmed. A one-way analysis of variance indicated that the Patient-Centred component was able to discriminate between the five treatment programmes.

## CHAPTER 11

### Analysis of Staff Perceptions Regarding Their Relationship to Patients

#### Section 11.1. Introduction

The importance of how staff relate to patients has been discussed extensively in chapter 5. We have noted the need to extend evaluation of alcoholism programmes to include an assessment of staff-patient relationships, to see whether they make any contribution to alcoholism treatment outcome. Unfortunately, direct assessment of staff-patient relationships was not practical. Instead, we approached this indirectly, by assessing staff perceptions of staff-patient relationships. In so doing, we are assuming that staff perceptions furnish a reasonable approximation to actual patient-staff behaviour. As noted in chapter 9, a modified version of the Barret-Lennard Relationship (BLRI) (Weibe and Pearce, 1973) will be used in the present study to measure staff perception of staff-patient relationships. The BLRI purports to assess perceived staff-patient relationships in five areas. These five areas are Empathy, Congruence, Regard, Unconditionality of Regard, and Willingness to be Known. A definition of these subscales, along with a detailed description of the version of the BLRI used in the present study, is given in chapter 9. The data analysis in the



present chapter is an attempt to examine staff responses to the BLRI.

Section 11.2. Staff Responses  
to the BLRI for the Total  
Staff Population

The mean staff BLRI subscale scores and corresponding standard deviations are presented in table 11.1.

TABLE 11.1.--Mean Staff BLRI Subscale Scores and Standard Deviations for the Total Staff Population

N=78

Subscale	Mean	S.D.
Regard (R)	22.74	5.83
Congruence (C)	28.77	6.27
Empathy (E)	21.01	4.64
Unconditionality of Regard (U)	16.31	4.58
Willingness to be Known (W)	31.02	7.45

A t-test comparing mean subscale scores of males and females revealed no significant difference between the two groups. Staff subjects were divided into two groups: those who fell above and those who fell below the median, with respect to time worked in the treatment programme and to total time worked with alcoholics. A t-test, comparing BLRI subscale scores for those who fell above and below the median on the two variables, revealed no significant difference in BLRI subscale scores. One could then conclude that the staff member's sex, length of time worked in the treatment programme, and length of time worked with alcoholics were independent of the staff member's BLRI subscale scores.

It is possible that staff might have been reluctant

to indicate how they related to patients for fear of being identified, especially since it has already been noted that staff may see the alcoholic as potentially disruptive, hard to treat, and unmotivated. One way to test the possibility of biased responses was to compare those staff members who indicated their staff positions with those who omitted them. The results of a t-test comparing BLRI mean subscale scores for the two groups are presented in table 11.2.

TABLE 11.2.--Results of a t-test Comparing Mean BLRI Subscale Scores for Staff Who Indicated Their Position With Staff Who Omitted Their Position

Subscale	Indicated N=69		Omitted N=9		t
	Mean	SD	Mean	SD	
R	22.71	5.98	23.00	7.05	0.14
C	20.93	4.60	21.67	5.20	0.45
E	28.19	5.98	33.22	7.05	2.33*
U	15.99	4.48	18.77	4.79	1.66
W	30.75	7.64	33.11	5.71	0.89

\* $p < .05$  two-tailed

The results from table 11.2 indicate that staff who omitted their position score higher on BLRI subscales, indicative of a more negative relationship with patients, than do staff who indicated their position. It is possible, therefore, that staff responses to the BLRI might be biased toward indicating more favourable staff-patient relationships than might otherwise be justified. Since the differences reached significance in only one of the five subscales, the possibility of bias does not appear to be great. However, given the possibility of positive

response bias, we should interpret findings relating to the BLRI with increased caution.

Pearson product-moment correlations were computed between the BLRI subscale scores. The results are given in table 11.3.

TABLE 11.3.--BLRI Subscale Intercorrelations for the  
Total Staff Population  
(decimal points omitted)  
N=78

	R	C	E	U	W
R					
C	51**				
E	65**	57**			
U	54**	61**	62**		
W	26*	52**	14	21*	

\*p<.05

\*\*p<.01

It would appear from table 11.3 that the BLRI subscales are highly intercorrelated. There does seem to be a noticeable difference in the magnitude of the subscale intercorrelations. The W subscale is intercorrelated with the other BLRI subscales to a lesser extent, except for the correlation between the W and C subscales. This might suggest an underlying two-dimensional structure, where the W and C subscales form one dimension and the R, C, E and W subscales form another dimension. One can only suggest this possibility, since one is never sure that the subscales are mathematically independent of each other. The possibility of a two-dimensional structure will again be considered in section 11.4.

Section 11.3. Staff Responses  
to the BLRI for Each  
Treatment Programme

This section will test the following hypothesis:

Hypothesis 3: The BLRI subscale scores are capable of discriminating between the perceptions of staff regarding their relationship to patients on treatment programmes which show prima facie differences in the manner in which staff relate to patients.

It is important to see whether the BLRI is capable of discriminating between staff-patient relationships in the different treatment programmes, and, if so, whether the differences agree with what is known about each programme, based on observations reported in chapter 8. If this proves to be the case, then the usefulness of the BLRI as a measure of staff-patient relationships will be increased.

Differences in BLRI subscale scores between the five treatment programmes were analysed using a one-way analysis of variance. Subscale means and standard deviations, with corresponding values of F, are given in table 11.4.

It can be seen from table 11.4, that only the Willingness to be Known (W) subscale is capable of discriminating between the five treatment programmes. The Congruence (C) subscale, however, comes very close to being able to discriminate between the treatment programmes, in that the minimum level of F necessary for discrimination (where between groups d.f.=4 and within groups d.f.=73) is between 2.50 and 2.48. The value obtained from the one-way analysis of variance for the C subscale was 2.45. Hypothesis 3 is thus confirmed only with respect to the W subscale, although it comes close to being confirmed for

TABLE 11.4.--BLRI Subscale Means and Standard Deviations for Each Treatment Programme and Corresponding Values of F

Subscale	Programme											
	A			B			C			D		
	N=17			N=19			N=20			N=14		
	M	SD		M	SD		M	SD		M	SD	
R	22.47	5.83		24.10	6.50		21.85	5.08		23.21	6.14	
C	32.64	5.78		25.79	6.17		28.20	6.47		28.50	6.42	
E	21.65	4.91		21.16	5.21		19.50	4.93		22.29	3.12	
U	16.70	5.02		15.00	5.00		15.80	3.95		17.36	4.95	
W	36.23	6.87		29.95	8.51		30.45	6.89		28.50	5.09	
										21.50	6.14	0.49
										27.12	4.12	2.45
										20.87	4.18	0.87
										18.00	3.02	0.94
										28.37	7.05	3.18*

\* between groups d.f.=4, within groups d.f.=73;  $p < .05$

the C subscale, as well.

In the light of the ability of the W subscale of the BLRI to discriminate between the five treatment programmes, it becomes useful to examine the mean W subscale scores for each treatment programme, in order to isolate which of the treatment programmes is contributing most to the overall significance. All five treatment programmes were compared, two at a time, using the t-test. When one compares several programmes, two at a time, one increases the likelihood of obtaining erroneous significances (Ferguson, 1964). In order to guard against this possibility, the acceptable level of significance was changed to the .005 level. This new level of significance was obtained by dividing the .05 level by the total number of paired comparisons which were unique (Cohen, 1975). In other words, A with B was counted the same as B with A. This procedure insured that the overall level of significance would remain at the .05 level, no matter how many paired comparisons were made. The t-tests revealed only one pair of treatment programmes (A with D) that were significantly different from each other ( $t=3.49$ ;  $d.f.=29$ ;  $p<.01$ )<sup>1</sup>. One can then conclude that the main contribution to the significance of the difference between the five programmes comes from the difference between programmes A and D, with differences between the other programmes contributing to the overall significance to a lesser extent.

As mentioned previously, it is also important to consider whether the mean BLRI subscale scores agree with what is known about each programme. A detailed analysis

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<sup>1</sup>With p being two-tailed.



of the mean subscale scores will only be presented for the W and C subscales, as these are the two subscales that either discriminate or nearly discriminate between the treatment programmes. Programme A has a relatively high subscale mean on the C subscale of the BLRI (see table 11.4). This indicates that there is a considerable gap between what staff say to patients and how they feel. This is understandable when one considers that programme A is highly psychoanalytically oriented. One of the tenets of psychoanalytically-oriented psychotherapy is that staff do not communicate to the patient any feelings they might have about him, but rather encourage the patient to communicate his feelings to the staff. Programme B is seen to have a relatively low score on the C subscale, indicating that there was little difference between what the staff in programme B communicated to the patients and how they felt about the patients. This is not surprising, in that the staff in programme B had very little regard for the patients and tended to communicate this quite openly. On the other hand, staff in programme E tended to perceive themselves as showing a high degree of feelings in their relationship to patients, as indicated by their relatively low C subscale scores. Staff in this programme quite often confronted the patients, if they felt that patients were not seriously attempting to become involved in their own treatment. Moreover, staff were quick to confront patients who appeared to be attending the treatment programme to foster dependency needs or to avoid responsibility. Programmes C and D are in the

middle range of the distribution, with respect to mean C subscale scores. There is nothing within these two programmes that would cause them to show either very high or very low scores on the C subscale.

The relatively high score on the W subscale, indicating unwillingness to share one's personal experiences with patients, for staff in programme A is consistent with its psychoanalytic orientation, which has already been noted. Programme B scores much lower than programme A on the W subscale. One would have expected a score more similar to that of programme A, in that the staff in programme B do not interact with patients and do not share their personal experiences with patients. Programme C, being midway in the distribution relative to the other programmes, is where it should be, given that there is nothing in the programme which might alert one to predict either a high or a low score on the W subscale. There is no apparent reason for the relatively low score of programme D on the W subscale. Programme E scores the lowest on the W subscale, indicating a high degree of self-disclosure toward patients. This can be understood in terms of the four recovered alcoholics who worked in the programme. All four readily shared their past experiences of being alcoholic with the patients, when appropriate.

If one examines table 11.4, one sees that programme D, relative to the other programmes, scored high on the R, E and U subscales, indicating that staff show relatively little regard and empathy in their relationships with patients and they place a high degree of conditions on

their regard. In other words, they will only regard patients favourably if they behave in certain ways. The negative relationship of staff to the alcoholic patients is surprising, given that the consultant shows a considerable amount of interest in the treatment of alcoholic patients. One possible explanation for the fact that staff responses to the BLRI indicate negative relationships is that programme D is geographically adjacent to the detoxification programme. It is possible that the adjacent location of programme D might cause the staff to worry that the alcoholic patients in the detoxification project might cause a disruption to the smooth running of programme D. This seems a possibility, since there is a considerable amount of socialisation between patients in programme D and those in the detoxification programme. Also, one of the detoxification patients did create a considerable disruption just a few days before testing. In summary, it appears that staff responses to the BLRI, on the whole, showed less face validity, in terms of what was known about the treatment programmes, than did staff WAS(COPES) responses.

#### Section 11.4. Principal Component Analysis of BLRI Subscale Intercorrelations

This section will test the following hypothesis:

Hypothesis 4: The staff responses to the BLRI will reveal a unidimensional structure, when subjected to principal component factor analysis.

The BLRI subscale intercorrelations in table 11.3 were subjected to a principal component analysis, similar to that described in chapter 10. One component emerged,

which accounted for 58.4 percent of the variance. However, another component accounted for 19.8 percent of the variance and had an eigenvalue of 0.99, which was just short of the 1.00 value needed for retention. In light of the substantial variance accounted for by the second component, it was decided that a two-component solution would give a better approximation to the original data. This does not support the notion of one dimension underlying how staff relate to patients. Hypothesis 4 is, therefore, not accepted. The varimax-rotated factor loadings for both components are presented in table 11.5.

TABLE 11.5.--Varimax-Rotated Factor Loadings for the Two-Component Solution from the Principal Component Analysis of the BLRI Subscale Intercorrelations

N=78		
Varimax-Rotated Factor Loadings		
Subscale	Component 1	Component 2
R	.80464	.17655
C	.63164	.62358
E	.89343	.04484
U	.82198	.17914
W	.05779	.96571

The first component loads highest on Regard (R), Empathy (E), and Unconditionality of Regard (U). The first component also appears to load moderately high on Congruence (C), although the loading does not reach the criterion of 0.80.<sup>1</sup> Since the higher the BLRI subscale score, the more negative the staff member's perception of staff-patient relationships, component 1 could actually be thought of as loading highest on little Regard, little Empathy and high conditionality, while loading moderately high on little Congruence. The component seems to reflect

<sup>1</sup>A value of .80 was thought to indicate a relatively high loading. This was an arbitrary decision.

a basically negative perception by the staff of their relationships with patients, which is consistent with material presented in chapter 6, noting the possibility that staff perceive alcoholics in negative terms. The first component is therefore labelled a "Negative Orientation" component.

The second component loads very high on the Willingness to be Known subscale and moderately high on the Congruence subscale. Again, because high subscale scores indicate a more negative perception, the second component can be thought of as loading high on unwillingness to be known and moderately high on little Congruence. Since a <sup>little</sup> ~~low score on the Congruence subscale~~ can be thought of as indicating a withholding of feeling from the patient and unwillingness to be known can be thought of as indicating a withholding of personal experiences from the patient, it seemed that this component reflected a general element of withholding and was therefore labelled a "Withholding" component.

Both components were translated to factor scores with a mean of 50 and a standard deviation of 15, for each staff subject. This is identical to what was done in chapter 10. A one-way analysis of variance between the mean factor scores on each component for the five treatment programmes indicated that only the Withholding component factor scores were capable of discriminating between the treatment programmes ( $F=4.27$ ; d.f.=4/73;  $p<.01$ )<sup>1</sup>. The mean Withholding component factor scores for each treatment programme and corresponding standard deviations

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<sup>1</sup>between groups d.f./ within groups d.f.

TABLE 11.6.--Mean Factor Scores and Corresponding Standard Deviations on the Withholding Component for Each Treatment Programme

	Treatment Programme				
	A	B	C	D	E
	N=17	N=19	N=20	N=14	N=8
Mean	61.68	46.40	49.77	44.43	44.05
Standard Deviation	13.50	16.36	14.04	11.55	10.91

are presented in table 11.6.

The mean factor scores presented in chapters 10 and 11 have not been subjected to any further analysis, since the study is primarily concerned with the subscale scores and not the resulting factor scores. Factor scores will again be briefly considered in chapter 22, in an attempt to relate aspects of the perceived treatment milieu and staff-patient relationships to treatment outcome. However, even in that analysis, the primary focus still remains on the WAS(COPES) and BLRI subscale scores, since there is often a considerable loss of information when one uses factor scores, given that factoring is an attempt to collapse the data.

#### Section 11.5. Summary

This chapter analysed staff responses to the BLRI subscales. The responses of staff to the BLRI were found to be independent of their sex, the time worked in the treatment programme, and the time worked with alcoholics. There was some possibility that the responses of staff members would be biased towards indicating more favourable relationships with patients than were justified. This was



particularly true of staff responses to the Empathy subscale of the BLRI.

A one-way analysis of variance indicated that the Willingness to be Known subscale discriminated between the perceptions of staff in the five treatment programmes regarding their relationship to patients. Hypothesis 3 was therefore confirmed for the Willingness to be Known subscale of the BLRI. The Congruence subscale approached significance in its ability to discriminate between treatment programmes.

The BLRI subscale intercorrelations were subjected to a principal component factor analysis. Two components emerged, which were labelled a Negative Orientation component and a Withholding component. Hypothesis 4 was therefore not accepted. When the results of the principal component analysis were transformed into factor scores for each subject, the Withholding component was able to discriminate between the five treatment programmes.



## CHAPTER 12

### The Relationship between Staff Responses to the WAS(COPES) and Their Responses to the BLRI

#### Section 12.1. Introduction

This chapter will examine the relationship between staff's perception of treatment milieu, as measured by WAS(COPES) subscale scores, and their perceptions of staff-patient relationships, as measured by their responses to the BLRI. We have already discussed evidence (see chapter 7) dealing with the possibility of a causal association between how staff perceive their treatment milieu and how they relate to patients. Based on the material presented, it was not possible to state whether staff's milieu perception influenced their perception of staff-patient relationships or vice versa. In light of this, the present chapter will also examine staff responses to the WAS(COPES) and BLRI for evidence that might suggest causality. It should be noted, however, that causality is extremely difficult to establish with any degree of certainty. At best, one can suggest that the evidence at hand does or does not point to a possible causal relationship.

Section 12.2. The Relationship  
between WAS(COPES) Subscale  
Scores and BLRI Subscale Scores  
for the Total Staff Population

This section will test the following hypothesis:

Hypothesis 5: There is a significant negative correlation between staff BLRI subscale scores and their WAS or COPES subscale scores.

Sideman and Moos (1973) found that patients who perceived their treatment milieu more positively also perceived the staff as showing more helping behaviour toward the patients. In the light of this finding, one might expect that staff who perceive the treatment atmosphere as more positive might also perceive the way they relate to patients in more positive terms. Since lower scores on the BLRI subscales are indicative of a more favourable staff-patient relationship and higher WAS(COPES) subscale scores are indicative of more favourable perceptions regarding the treatment milieu, one would expect a negative correlation. The exception to this is the correlation between the WAS(COPES) Staff Control subscale and the BLRI subscales, since, according to Moos (1974), a low score on the Staff Control subscale indicates a more positive milieu perception. Since the WAS(COPES) subscale scores are possibly discontinuous, the Kendall rank-order correlation coefficient was used in preference to a product-moment coefficient. The results for the total staff population are presented in table 12.1.

It would appear from table 12.1 that the majority of rank-order correlation coefficients are in the expected direction. Substantially more correlation coefficients

TABLE 12.1.--Correlations between WAS(COPES) Subscale Scores and BLRI Subscale Scores for the Total Staff Population  
(decimal points omitted)  
N=78

WAS(COPES) Subscales	BLRI Subscales				
	R	C	E	U	W
I	-21**	-06	-14*	-05	-09
S	-16*	-18**	-26**	-22**	-16*
SP	-17*	-31**	-21**	-23**	-25**
AUT	-19**	-26**	-16*	-09	-25**
PO	-10	-23**	-16*	-13*	-21**
PPO	-09	-01	-08	00	-04
AA	02	28**	17*	24**	11
OO	-11	-21**	-19**	-12	-12
PC	-30**	-37**	-31**	-29**	-12
SC	10	08	07	18**	05

\*p<.05

\*\*p<.01

reach significance than would be expected by chance alone.<sup>1</sup> One must therefore conclude that there is an association between how staff perceive their relationship with patients and how they perceive their treatment atmosphere. Hypothesis 5 is confirmed for the total staff population.

While the Anger and Aggression subscale of the WAS (COPES) is correlated with the BLRI subscales, the correlations are in the opposite direction to what one would expect. Staff who perceive the treatment milieu as allowing more expression of hostility (higher scores on the Anger and Aggression subscale of the WAS or COPES) tend to perceive their relationships with patients in more negative terms (indicated by higher BLRI subscale scores). One possibility for this is that the alcoholic patient who expresses hostility could be seen by staff as creating potential difficulty on the ward, which might, in turn, lead to a more negative perception of the patient

<sup>1</sup>One must regard this with caution since the number of significant correlations might be due to the intercorrelation amongst BLRI subscales.

and, hence, a more negative perception of the staff's relationship to patients. The positive correlation between the AA subscale score on the WAS(COPES) and the BLRI subscale scores is consistent with the findings of Sideman and Moos (1973). They found that patients who perceived the staff as showing more helping behaviour toward patients also perceived the ward as showing less emphasis on the Anger and Aggression subscale of the WAS.

### Section 12.3. The Possibility of Causation

In order to explore whether or not there is a causal relationship between how staff perceive their treatment milieu and how they perceive their relationship to patients, all five treatment programmes were initially grouped into three categories for each WAS(COPES) subscale. The first category was comprised of the two programmes having the lowest mean score on the WAS(COPES) in question. The second category comprised the programme lying at the middle of the distribution of mean subscale scores for the particular WAS(COPES) subscale. The third category was comprised of the two programmes with the highest mean WAS(COPES) subscale score. At the same time, the programmes were divided at the median score of the total staff population for each BLRI subscale. This produces fifty three-by-two chi-square contingency tables, since there were ten WAS(COPES) subscales and five BLRI subscales. This procedure allowed one to test whether or not there was an association between the level of a programme's WAS(COPES) subscale scores and how the staff in

the programmes scored on the BLRI subscales. The analysis is only concerned with the number of significant associations, relative to those that would be expected by chance. Because the analysis is very exploratory in nature, it is not concerned with the associations themselves. The length of time worked in the programme was controlled for, by conducting two different analyses. Those staff who had worked in the treatment programme less than the median amount of time were included in one analysis, while those staff who worked in the programme greater than the median time were included in the second analysis. This resulted in one hundred possible associations, given that there were ten WAS(COPES) subscales, five BLRI subscales, and two separate analyses. At the .05 level of significance, therefore, one would have expected, by chance, a total of five significant chi-squares. The results indicated only three significant values of chi-square for the association between a programme's WAS (COPES) subscale score and its corresponding BLRI subscale score. All three of the significant associations were for the staff who worked in the treatment programme for greater than the median length of time. This is approximately what one would have expected by chance, given fifty possible associations in this category.

At this point, the analysis was reversed. The programmes were categorised on each BLRI subscale, while being divided on the median WAS(COPES) response for each subscale. As before, this yielded three categories: those programmes which had high BLRI subscale scores,

that programme which had the middle BLRI subscale score, and those programmes which had the lowest BLRI subscale scores. Within each category, there were those staff who fell above or below the median WAS(COPES) subscale score for the total staff population. This produced one hundred possible three-by-two contingency tables (five BLRI subscales by ten WAS(COPES) subscales by two analyses--one for staff working more than the median length of time in their treatment programmes and the other for staff working less than the median length of time). The results for staff working less than the median time in the treatment programme revealed that fifteen out of a possible fifty associations reached significance. Thus, by reversing the analysis, the number of significant associations rose from zero to fifteen in this category. For those staff who worked longer than the median time in a treatment programme, there were twenty associations which reached significance, out of a possible fifty. By reversing the analysis, the number of significant associations in this category rose from three to twenty.

The marked increase in the number of significant associations following a reversal in the direction of analysis might suggest that a programme's score on the BLRI could be more likely to influence how its staff members perceived the treatment milieu, as measured by the WAS(COPES), rather than the programme's treatment milieu influencing how the staff perceived their relationship to patients, as measured by the BLRI. One must remember, however, that it is impossible to prove absolute causality.



One explanation for the apparent causal relationship is that the staff perceptions of their relationship to patients, rather than a measure of behaviour, is a measure of some personality characteristic of the staff. Astin and Holland (1974) have indicated that personality characteristics help to determine treatment milieu. If this is the case, and if staff's perceptions of their interpersonal relationships are an indirect measure of staff personality characteristics, then this would explain why the BLRI subscale scores appear to be influencing one's perception of the milieu, rather than the reverse. Rogers (1961) has also indicated that the way in which staff relate to patients helps to determine treatment climate. Much more work in future studies would be needed in this area before we might have a definite indication about the causality between how staff perceive treatment milieu and how they perceive their relationship to patients.

#### Section 12.4. Summary

Staff responses to the BLRI and WAS(COPES) were correlated using Kendall rank-order correlations. The results indicated that, with the exception of the AA and SC subscales of the WAS(COPES), the subscales of the two instruments were negatively intercorrelated. Hypothesis 5 was therefore accepted. The negative correlation between WAS (COPES) and BLRI subscales meant that staff who perceived their relationship to patients in more favourable terms were also more likely to see their treatment milieu as positive, and vice versa. There was also evidence



presented to suggest that a programme's score on the BLRI was more likely to be associated with how staff perceived their treatment milieu, rather than the reverse. More work would need to be done we could determine the absolute nature of causality.

PART FOUR

ANALYSIS OF PATIENT DATA

## CHAPTER 13

### The Patient Population

#### Section 13.1 Introduction

The chapter will be mainly a presentation of patient characteristics in tabular form. Some of the patient characteristics will also be compared to those of other studies. This is a crude way of establishing the validity or the soundness of the data. Lastly, the patient characteristics will be analysed to see if there are differences between the treatment programmes with respect to distribution of patient characteristics. As mentioned earlier, this was the main reason why patient data were collected. The percentages reported in the tables are based on the total number of patients interviewed ( $N=124$ ). In some instances, the question was only asked to a subset of the population, so that the numbers reported are less than 124. The remainder of the patients were coded as "unclassified". This category also includes patients who did not answer a question (unless there was a category for those not answering), as well as subjects who were inadvertently not asked a question. Because of rounding, figures do not always equal 100 percent.

#### Section 13.2. Patient Characteristics

The characteristics of patients in the present study are presented in table 13.1.

TABLE 13.1.--Characteristics of the Patient Population  
in the Present Study

N=124

<u>Characteristic</u>	<u>Number</u>	<u>Percent</u>
<u>Age</u>		
Thirty or less	15	12.1
31-40	33	26.6
41-50	30	24.2
51-60	40	32.3
60+	3	2.4
Unclassed	3	2.4
<u>Marital Status</u>		
Married	67	54.0
Single	29	23.4
Other	28	22.6
<u>Marriage Length*</u>		
Less than 1 year	2	1.6
1-5 years	10	8.1
6-10 years	7	5.6
11-15 years	11	8.9
15+ years	40	32.3
<u>Area of Residence</u>		
City	91	73.4
Town	16	12.9
Village	15	12.1
Unclassed	2	1.6
<u>Type of Residence</u>		
Owned Home	35	28.2
Rented (including council house)	61	49.2
Digs	11	8.9
Hostel	1	0.8
Living rough	2	1.6
Other	14	11.3
<u>Length in Present Residence</u>		
1 year or less	31	25.0
1-5 years	41	33.0
6-10 years	24	19.4
11-15 years	13	10.5
15+ years	15	12.1
<u>Living With</u>		
Wife or wife & children	66	53.3
Family of origin	17	13.7
Cohabitee	1	0.8
Children	1	0.8
Friends	5	4.0
Other relatives	3	2.4
Others	4	3.2
Alone	25	20.2
Unclassed	2	1.6

TABLE 13.1.--Continued

<u>Characteristic</u>	<u>Number</u>	<u>Percent</u>
<u>Employment Status</u>		
Presently employed (at time of interview)	63	50.8
Unemployed	61	49.2
<u>Job Performance</u>		
Remaining good	57	46.0
Deteriorating	67	54.0
Mean number of jobs held	8.73	
Median number of jobs held	2.57	
<u>Length of Present Job</u> (if unemployed, length of last job held)		
1 year or less	43	34.7
1-5 years	35	28.2
6-10 years	11	8.9
11-15 years	12	9.7
15+ years	22	17.7
Unclassed	1	0.8
<u>Length of Longest Job</u>		
1 year or less	8	6.4
1-5 years	28	22.6
6-10 years	19	15.3
11-15 years	24	19.4
15+ years	45	36.3
<u>Social Class**</u>		
One	12	9.7
Two	18	14.5
Three	51	41.1
Four	28	22.6
Five	10	8.1
Unclassed	5	4.0
<u>Previous Treatment</u>		
Inpatient in General Hospital	5	4.0
Inpatient in Psychiatric Hospital	18	14.5
Outpatient in General Hospital	5	4.0
Outpatient in Psychiatric Hospital	4	3.2
GP	12	9.7
AA	7	5.6
GP + Hospital (inpatient or outpat.)	8	6.5
AA + Hospital (inpatient or outpat.)	11	8.9
AA + GP + Hospital (inpat. or outpat.)	14	11.3
Other	9	7.3
No treatment	31	25.0

TABLE 13.1.--Continued

<u>Characteristic</u>	<u>Number</u>	<u>Percent</u>
<u>Length of Prior Treatment</u>		
Less than 1 month	24	19.4
1-3 months	33	26.6
4-6 months	13	10.5
6-12 months	5	4.0
Greater than 12 months	18	14.5
Unclassed	31	25.0
<u>Prior Treatment in Present Programme</u>		
Yes	39	31.5
No	85	68.5
<u>Referral Source</u>		
Self	20	16.1
GP	54	43.6
General hospital physician	5	4.0
Psychiatrist	32	25.8
Emergency room	2	1.6
Other	9	7.3
Unclassed	2	1.6
<u>Length of Drinking Problem</u>		
Less than 1 year	15	12.1
1-5 years	38	30.6
6-10 years	32	25.8
11-15 years	8	6.5
15+ years	29	23.4
Unclassed	2	1.6
<u>Drinking Related Problems</u>		
Morning shakes	101	81.5
Memory loss	107	86.3
DT's	38	30.6
Auditory hallucinations	42	33.9
Mental breakdown (feeling one's life is going to pieces because of drink)	53	42.7
Withdrawal symptoms	91	73.4
<u>Number of Above Problems Reported</u>		
No problems	6	4.8
One	10	8.1
Two	20	16.1
Three	27	21.8
Four	25	20.2
Five	15	12.1
Six	21	16.9

TABLE 13.1.--Continued

<u>Characteristic</u>	<u>Number</u>	<u>Percent</u>
<u>Age When First Took Drink</u>		
14 years or less	16	12.9
15	14	11.3
16	24	19.4
17	14	11.3
18	16	12.9
19 or over	40	32.2
<u>Age When First Drunk (Intoxicated)</u>		
14 years or less	10	8.1
15	10	8.1
16	11	8.9
17	13	10.5
18	18	14.5
19	11	8.9
20	14	11.3
Older than 20	32	25.8
Unclassed	5	4.0
<u>Any Attempt at Abstinence since Developing a Problem</u>		
Yes	101	81.5
No	23	18.5
<u>Relatives with a Drinking Problem***</u>		
Father	33	26.6
Siblings	15	12.1
Uncles and aunts	11	8.9
<u>Drinking at Admission</u> (or on the day of first being interviewed as an outpatient)		
Yes	56	45.2
No	67	54.8
Unclassed	1	0.8
<u>An Attempt at Abstinence in the 10 Weeks Prior to First Interview</u>		
Yes	77	62.1
No	47	37.9
<u>Length of Abstinence during 10 Weeks Prior to First Interview</u>		
Less than 1 day	47	37.9
1 day - 1 week	27	21.8
1 week - 2 weeks	13	10.5
2 weeks - 5 weeks	22	17.7
5 weeks - 10 weeks	15	12.1



TABLE 13.1.--Continued

<u>Characteristic</u>	<u>Number</u>	<u>Percent</u>
<u>Frequency of Drinking during</u> <u>10 Weeks Prior to First Interview</u>		
Less than 5 times	8	6.4
5 times or more	116	93.6
<u>Presence of Bouts during 10</u> <u>Weeks Prior to First Interview</u>		
Yes	82	66.1
No	42	33.9
<u>Number of Bouts</u>		
One	35	28.2
Two	8	6.4
Three	11	8.9
Four	5	4.0
Five or more	23	18.5
None	42	33.9
Mean length of longest bout during 10 weeks prior to first interview	8.86 days	
Median length of longest bout during 10 weeks prior to first interview	2.54 days	
<u>Drinking Status Index Score</u> <u>Obtained at First Interview</u>		
One	56	45.2
Two	64	51.6
Three	3	2.4
Unclassed	1	0.8
<u>Contact with GP during 10</u> <u>Weeks Prior to First Interview</u>		
Yes	98	79.0
No	24	19.4
Unclassed	2	1.6
<u>Reason for Contact with GP</u>		
Medical problem (other than drinking related)	11	8.9
Medical problem (drinking related)	7	5.6
Drinking problem	52	41.9
Psychiatric problem	6	4.8
Medical + psychiatric problem	3	2.4
Medical + drinking problem	14	11.3
Psychiatric + drinking problem	5	4.0
Unclassed	26	21.1

TABLE 13.1.--Continued

<u>Characteristic</u>	<u>Number</u>	<u>Percent</u>
<u>Patient's Report of Health at First Interview</u>		
Very satisfactory	23	18.5
Moderately satisfactory	30	24.2
Neither satisfactory nor unsatisfactory	10	8.1
Moderately unsatisfactory	21	16.9
Very unsatisfactory	40	32.2

\*There is a discrepancy of three more patients indicating a marriage length than those originally indicating that they were currently married. This might be due to those who were widowed, divorced or separated misunderstanding this question.

\*\*Based on the Registrar General's classification of occupations. Social class was assigned according to the present job held or last job held.

\*\*\*These categories were most frequently reported. In total, 62.9 percent of the patients indicated one or more relatives with a drinking problem.

It is not the purpose of the present study to survey patient characteristics. For this reason, a detailed analysis of the above table will not be included. It should be pointed out, however, that the patient sample does appear to show a high degree of social integration, in that more than half the total patient sample reported being married, living in their present residence for more than one year, living with wife or wife and children, and retaining their present job for longer than one year. This agrees with the findings of Strauss and Bacon (1951), who also reported a relatively high degree of social integration in patients seeking treatment for alcoholism.



TABLE 13.2.--Continued

<u>Length of Drinking Problem</u>					
<u>Kershaw(1973)</u>		<u>Vallance(1965)</u>		<u>Present Study(1975)</u>	
1 yr. or less	2%	1 yr. or less	1.5%	Under 1 yr.	12.1%
1-2 years	3%	2-5 years	16.2%	1-5 years	30.6%
2-5 years	14%	5-10 years	20.6%	6-10 years	25.8%
5-10 years	18%	10-20 years	38.2%	11-15 years	6.5%
10-20 years	29%	20+ years	23.5%	15+ years	23.4%
20+ years	34%			Unclassed	1.6%

We can see from the above table that patient characteristics in the present study are similar in distribution to those in other studies. This gives a rough indication that the information collected in the present study is reasonably sound, in that it agrees with data collected from other studies. The main difference seems to be that patients in the present study appear to have had a drinking problem for a shorter duration than patients in the other studies cited. One possible explanation for the discrepancy might be that the other studies are only based on one treatment programme, so that any difference in the distribution may be the result of sampling error.

Section 13.4. Patient Characteristics  
in Relation to Early Discharge

Statistics given to date for the present study were based on the whole patient population that was interviewed (N=124). As mentioned earlier, only usable patients, i.e., those who stayed in treatment for the first two interviews, were included in the patient sample. Of the 124 patients interviewed, 24 were lost because they failed to remain in treatment. There then exists the possibility that the remaining sample might be biased, if they are

significantly different from those who left treatment before completing the second interview.

In order to examine the possibility of bias, the patients who remained in treatment long enough to complete the discharge interview (N=100) were compared with those patients (N=24) who left treatment before the discharge or second interview. Because many of the patient characteristics were coded as nominal variables, it was only possible to compare the two groups of patients using chi-square analysis (Siegel, 1956). Difficulties arose, however, because of the nature of the distributions. Many variables had a number of different categories with a small number of subjects in each category. In order to use chi-square analysis meaningfully, the expected frequencies must not be less than 5 in 20 percent of the cells for degrees of freedom greater than one (Siegel, 1956). This was often not the case. It then became necessary to combine categories in order to increase the expected cell frequencies. Each variable was dichotomised, either at the median or at the modal response. While the dichotomising of variables meant a loss of information, and therefore a less powerful statistical test, it did have a number of advantages. First and foremost, it made the analysis possible. Secondly, it allowed for the incorporation of Yates's correction for discontinuity (Nie et al., 1970).

Comparing the dichotomised characteristics of those patients who remained in treatment with those who left before the second interview, indicated that only absence

or presence of DT's and bouts were associated with the type of discharge. Of those patients who reported DT's within ten weeks prior to the first interview, 94.7 percent remained in treatment, while 5.3 percent did not. Of those patients not reporting DT's, 74.4 percent remained in treatment, while 25.6 percent did not. For patients not reporting bouts during the same time period, 92.9 percent of the patients remained in treatment, while 7.1 percent did not. For patients who reported bouts, 74.4 percent of the patients remained in treatment, while 25.6 percent did not. The above differences were significant at the .05 level or better.

The following variables approached significance (at the 0.1 level or less) in their association with type of discharge: age, residence type, prior treatment length, and length of drinking problem. Younger patients (40 or less) had a higher proportion of patients leaving treatment (29.2 percent) than did patients who were over age 40 (13.7 percent) and who were, therefore, placed in the older category. Patients who did not own their own homes had 26.2 percent early discharges, as compared to 12.7 percent for those owning their own homes. More than 25 percent of those patients having more than four months of previous treatment left treatment early, as compared to those having less than four months previous treatment, where 12.3 percent of the patients left treatment before the second interview.

These results tend to support the contentions of Craig (1973), who, after reviewing the literature



pertaining to discharge against medical advice, noted the fact that several studies showed young patients were more likely to leave treatment earlier than old patients.

Greenwald and Bartemeier (1963) noted that patients who leave treatment against medical advice have more previous hospitalisation than patients who leave treatment with medical advice. This agrees with the finding of the present study, showing that patients with a greater amount of previous treatment are more likely to leave treatment early. Given that there are very few variables that are significantly associated with type of discharge, it would appear that the bias introduced by patients leaving before the second interview would be minimal.

#### Section 13.5. Differences in Patient Characteristics between Treatment Programmes

Based on the descriptions presented in chapter 8, of the different treatment programmes involved in the present study, it would seem that there are substantial differences in the therapeutic emphasis of these programmes. It might be reasonable to expect that a programme with a particular emphasis might "attract" a particular type of patient. The attraction can be seen to be embodied in the process of selection, either on the part of the patient or the programme. In other words, a patient might request treatment from a given programme that he or she felt would meet his or her perceived needs or characteristics. More likely, however, the selection would come from the staff, who accept or reject a particular patient.

Either way, it would seem likely that the selection process eliminates certain types of patients from each of the treatment programmes. Given this possibility, one might expect that patients in the five treatment programmes would differ in their characteristics.

In order to examine the possibility of patient differences between the treatment programmes, the patient characteristics were dichotomised according to the procedure given in the previous section. The data were arranged into a series of **four**-by-two contingency tables, where the dichotomised patient characteristic formed the row variable and the treatment programme formed the column variable. Values of chi-square were computed for each five-by-two contingency table. The results from the chi-square analysis of the patient characteristics are presented in table 13.3. Results are presented only for those patient characteristics that discriminate between the five treatment programmes at the minimum of the .05 level of significance.

Based on table 13.3, it does appear that there are differences between the programmes in patient characteristics. It was necessary to combine programmes C and D because of the small number of patients in these programmes. Data for patients in programmes C and D will be pooled in the remainder of the analysis.

One should be cautious in accepting the value of chi-square for recent drinking frequency, since the expected frequency for each cell does not fulfill Siegel's (1956) minimum requirements. The fact that different

TABLE 13.3.--Patient Characteristics Discriminating between Treatment Programmes

Characteristic	Treatment Programme				$\chi^2$ ***
	A N=38	B N=33	C + D N=12	E N=17	
Marital Status: Married(Other)	26(12)	13(20)	3( 9)	11( 6)	10.79*
Residence Type: Own(Other)	18(20)	21(12)	10( 2)	6(11)	8.45*
Living With: Not Alone(Alone)	33( 5)	26( 7)	6( 6)	14( 3)	7.61
Employment: Employed(Unemployed)	24(14)	9(24)	5( 7)	11( 6)	11.22*
Previous Treatment: Yes(No)	24(14)	30( 3)	7( 5)	15( 2)	10.90*
Referral Source: GP(Other)	20(18)	17(16)	1(11)	3(14)	12.76**
Auditory Hallucinations: Yes(No)	7(31)	16(17)	6( 6)	5(12)	8.72*
Drinking at Admission: Yes(No)	20(18)	22(11)	6( 6)	1(16)	17.09**
Recent Abstinence: Yes(No)	24(14)	17(16)	6( 6)	17( 0)	12.83**
Length Rec. Abstinence: Less than or = 2 wks.(More than 2 wks.)	27(11)	27( 6)	10( 2)	4(13)	19.80**
Recent Drinking Frequency: 5 times or fewer(More than 5 times)	1(37)	1(32)	0(12)	5(12)	15.93**
Admission Health: Good(Poor)	15(23)	10(23)	5( 7)	13( 4)	10.14*

NOTE: Numbers in parentheses correspond to characteristics in parentheses.

\*p&lt;.05      \*\*p&lt;.01      \*\*\*d.f.=3

treatment programmes have patients with different characteristics poses problems for the data analysis. This is particularly the case with both patients' perception of the treatment milieu and outcome variables. If the patient characteristics are associated with patient perceptions of the treatment milieu and their scores on the outcome variables, then any differences in these two areas can be due to differences in patient characteristics, rather than to the treatment setting. Moreover, because almost all the patient characteristics are nominal variables, it is not possible to remove their effect by statistical means. The most that one can do is express caution when interpreting the findings. If, however, the patient characteristics prove not to be associated with the variables under consideration, then the problem does not arise.

There were some additional patient characteristics which, because they were continuous, were compared for all treatment programmes using one-way analysis of variance. These characteristics included the number of jobs a subject held and the length of his longest bout. The results from a one-way analysis of variance indicated no difference between the treatment programmes with respect to the above characteristics. The problem discussed in the last paragraph therefore did not arise.

#### Section 13.6. Summary

The distribution of patient characteristics in the present study were found to be similar, with respect to

age, marital status, social class, and length of drinking problem, to those of other patient populations seeking alcoholism treatment. This similarity is a rough indication of the soundness of the data collected in the present study. The patients in the present study were also found to differ between the treatment programmes on a number of characteristics. These differences could pose difficulties in data interpretation, if the characteristics that show differences between the treatment programmes prove also to be related to treatment outcome and patients' perception of their treatment milieu.

## CHAPTER 14

### Patient Perception of Treatment Milieu

#### Section 14.1. Introduction

As mentioned in chapter 9, the patient perception of the treatment milieu was assessed in the same way as for staff, except that items were read to patients, rather than filled in as a self-report instrument. For a detailed description of the methodology, consult chapter 9. The present chapter will discuss patient responses to the orally-administered WAS or COPES.

#### Section 14.2. Patient Perception of the Treatment Milieu for the Total Patient Population

Henceforth, the term "total patient population" will be taken to mean all patients who completed at least two interviews. The WAS or COPES was administered to patients during the second research interview. Mean WAS(COPES) subscale scores and corresponding standard deviations are presented in table 14.1.

WAS(COPES) subscale scores are intercorrelated for the total patient population. As in chapter 10, correlations were computed using Kendall's rank-order correlation coefficient. The results are presented in table 14.2. Although the correlations are, in some cases, highly significant, they are not very large. It would appear,

TABLE 14.1.--Mean WAS(COPES) Subscale Scores and Standard Deviations for the Total Patient Population

N=100

Subscale	Mean	S.D.
Involvement (I)	2.83	1.27
Support (S)	2.90	1.02
Spontaneity (SP)	2.33	1.22
Autonomy (AUT)	2.25	1.01
Practical Orientation (PO)	2.41	1.25
Personal Problem Orientation (PPO)	2.44	1.04
Anger and Aggression (AA)	1.13	1.08
Order and Organization (OO)	3.35	0.88
Program Clarity (PC)	2.34	1.18
Staff Control (SC)	1.41	0.90

TABLE 14.2.--WAS(COPES) Subscale Intercorrelation Coefficients (Tau) for the Total Patient Population (decimal points omitted)

N=100

	I	S	SP	AUT	PO	PPO	AA	OO	PC	SC
I										
S	41**									
SP	12*	14*								
AUT	30**	23**	20**							
PO	23**	27**	22**	14*						
PPO	35**	15*	24**	05	25*					
AA	-10	-06	-10	-10	-04	-03				
OO	27**	27**	12*	14*	27**	24**	-02			
PC	17**	33**	27**	21**	22**	13*	-15*	18**		
SC	10	12*	-04	12*	-05	-08	-12*	05	25**	

\*p&lt;.05

\*\*p&lt;.01

therefore, that the WAS(COPES) subscale scores are relatively independent of each other.

#### Section 14.3. Patient Characteristics Associated with Their Perception of Treatment Milieu

It is important to note the association between patient characteristics and their milieu perceptions because, as mentioned before, such associations might contribute to spurious results in relation to the differences in milieu



perception between the treatment programmes. In other words, if a patient characteristic is both associated with milieu perception and differentially distributed between the treatment programmes, then any differences in the milieu perception between the treatment programmes might be due to the differences in patient characteristics, rather than to actual differences in treatment milieu.

The patient characteristics can be divided into three categories: nominal variables, ordinal variables, and continuous variables. Since there are only two patient characteristics which are continuous variables, they will be considered ordinal, and handled as such. The association between patient perception of milieu and patient characteristics which were nominal variables will be analysed using the chi-square test for association. The nominal patient characteristics were dichotomised, as described in chapter 13, and the WAS(COPES) subscale scores were dichotomised about each median WAS(COPES) response for the total patient population. This gives a two-by-two contingency table (Siegel, 1956). The association between ordinal patient characteristics and patient perception of treatment milieu will be assessed using rank-order correlations. Chi-square analysis could have been used, but rank-order correlations offered a more powerful test (Siegel, 1956). For reasons of space, only the significant associations will be presented.

Examining the association between nominal patient characteristics and WAS(COPES) subscale scores, one finds

that the overwhelming majority of chi-squares were extremely small, indicating a general lack of association between WAS(COPES) subscale scores and nominal patient characteristics. We see from table 14.3 (below) that only seven of the chi-squares reached significance at the .05 level. With approximately 220 possible associations, one would have expected to find that eleven reached significance by chance alone. The fact that there were fewer significant associations than one would have expected by chance is a possible indication that patient milieu perceptions, as measured by their WAS(COPES) subscale scores, are generally independent of nominal patient characteristics. The results for the analysis of the association between nominal patient characteristics and WAS(COPES) subscale scores are presented in table 14.3. The numbers in table 14.3 refer to absolute frequencies and not percentages. The numbers do not always add up to 100 because of missing values.

It is also possible that the lack of association between nominal patient characteristics and WAS(COPES) subscale scores might be due to the lack of power in chi-square analysis. Siegel(1956) has noted that combining response categories (as was done when variables were dichotomised) results in a less powerful test which, in this instance, is defined as a test that is less likely to show a significant difference when there might be one.

Ordinal and continuous patient characteristics were correlated with WAS(COPES) subscale scores, using Kendall's tau. The patient characteristics and those WAS(COPES)

TABLE 14.3.--Chi-Square Analysis of Association between Patient WAS(COPES)  
Subscale Scores and Nominal Patient Characteristics  
N=100

Nominal Patient Characteristics	Subscale	Above Median	Below Median	$\chi^2$
Area of Residence: City(Other)	AUT	49( 9)	25(15)	5.05*
Type of Residence: Own(Other)	AA	12(23)	43(22)	8.09**
Job Performance: Remaining Good (Deteriorating)	00	15(29)	32(24)	4.37*
Referral Source: GP(Other)	AUT	30(30)	11(29)	4.13*
DT's: Yes(No)	PO	25(23)	39(13)	4.73*
Drinking at Admission: Yes(No)	AUT	38(22)	11(28)	10.30**
Recent Abstinence: Yes(No)	AUT	33(27)	31( 9)	4.34*

NOTE: Numbers in parentheses correspond to characteristics in parentheses.

\*p<.05      \*\*p<.01 d.f.=1

subscales with which they are significantly correlated are presented in table 14.4. The value of N that each correlation is based on varies, because of missing values and inapplicable responses for each of the patient variables. For this reason, the value of N for each patient variable is indicated. For reasons of economy, only significant correlations will be presented.

There were three exceptions to the way in which the data were treated. The length of abstinence in the ten weeks prior to the first interview was treated as a nominal variable, rather than ordinal, because of the large number of cases in the first two categories. Similarly, the number of times a patient drank in the ten weeks prior to the first interview was also considered nominal, because the overwhelming majority of patients fell into the category of "five times or more". The drinking status index score was considered ordinal rather than nominal, because, even though subjects were classed into categories, there was an underlying order to the categories with respect to the amount of alcohol consumed. Treating the three-point drinking index score as ordinal is consistent with Willems et al. (1973a, 1973b), who proposed the use of a similar three-point scale.

From an examination of table 14.4 and table 13.3, it is apparent that admission health is the only ordinal variable that is both differentially distributed between the treatment programmes and also correlated with WAS (COPES) subscale scores. For patient characteristics that were considered nominal variables, the referral

TABLE 14.4.--Rank-Order Correlation of Ordinal and Continuous Patient Characteristics with WAS(COPES) Subscale Scores

Characteristic	Subscale										N
	I	S	SP	AUT	PO	PPO	AA	OO	PC	SC	
Age	--	--	15*	--	20**	--	--	--	--	--	97
Marriage Length	--	--	16*	--	--	--	--	20**	--	--	53
No. of Previous Marriages	--	25*	31**	--	--	28*	--	--	--	--	33
Length of Pres. Residence	11*	--	13*	--	--	12*	--	--	--	11*	100
Length Longest Job	--	--	12*	--	--	--	--	13*	--	--	99
Social Class	-12*	--	-12*	--	--	--	--	--	-16	--	100
Prior Treatment Length	--	--	--	--	--	--	17**	--	--	--	100
No. of Drinking Problems Reported	--	--	--	--	-13*	-15*	--	--	--	--	100
Age at First Drink	13*	13*	--	11*	--	--	--	12*	18**	17**	100
Age When First Got Drunk	--	--	--	11*	--	--	--	--	23**	12*	100
Length of Longest Bout	--	--	--	--	--	12*	--	18**	--	--	100
No. Recent Bouts	13*	-11*	--	--	--	--	-13*	--	--	--	99
Drinking Status	--	--	--	31**	--	--	--	--	14*	--	100
Admission Health	--	-19**	-20**	-14*	--	--	--	--	--	--	100

\*p<.05

\*\*p<.01

source, whether or not a patient was drinking at admission (or on the day of the first interview), and whether or not a patient attempted a recent abstinence (during the ten weeks prior to the first interview) were differentially distributed between the treatment programmes and associated with a WAS(COPES) subscale. Since the three nominal variables are associated with the AUT subscale of the WAS (COPES), any difference in AUT subscale scores between the treatment programmes (see section 14.4) might be due to differences in the distribution of these nominal variables between the treatment programmes. Similarly, the admission health, which is considered an ordinal variable, shows differences between the treatment programmes and is also correlated with the S, SP and AUT subscales of the WAS(COPES). Any observed differences in these subscales might be due to their association with the variable "admission health", rather than to differences in the treatment milieu.

#### Section 14.4. Differences in Patient Perception of Treatment Milieu between the Treatment Programmes

This section will test the following hypothesis:

Hypothesis 1B: The WAS(COPES) is capable of discriminating between perceptions of alcoholism treatment milieu held by patients on treatment programmes which show prima facie differences from each other.

The mean patient WAS(COPES) subscale scores and corresponding standard deviations are presented for treatment programmes A, B, C + D, and E, in table 14.5. The WAS (COPES) subscale scores were subjected to a median test (Siegel, 1956), as in chapter 10, to see whether or not

TABLE 14.5.--Mean Patient WAS(COPES) Subscale Scores and Corresponding Standard Deviations  
for Treatment Programmes Separately Considered

Subscale	Treatment Programme							
	A		B		C + D		E	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	N=38		N=33		N=12		N=17	
Involvement	3.22	1.04	2.10	1.40	3.00	1.21	3.23	0.90
Support	2.97	0.82	2.35	1.14	3.33	0.89	3.53	0.69
Spontaneity	2.28	1.14	2.24	1.11	2.33	1.07	2.59	1.18
Autonomy	2.05	1.03	2.00	0.90	2.00	0.60	3.35	0.70
Practical Orientation	2.66	1.12	2.00	1.51	2.83	0.86	2.38	1.05
Personal Problem Orientation	3.05	0.83	1.74	0.96	2.75	0.75	2.35	0.90
Anger and Aggression	1.21	1.21	1.06	1.03	1.25	1.05	1.00	0.93
Order and Organization	3.50	0.76	3.06	1.00	3.83	0.58	3.23	0.90
Program Clarity	2.08	1.15	2.28	1.27	2.46	1.03	2.94	1.03
Staff Control	1.07	0.79	1.61	0.94	1.42	0.90	1.79	0.85



there were differences between the treatment programmes on WAS(COPES) subscale scores. The chi-square contingency tables for each WAS(COPES) subscale are presented in tables 14.6 through 14.15.

TABLE 14.6.--Chi-Square Table for the WAS(COPES)  
Involvement Subscale

	Programme				
	A	B	C+D	E	Total
Below Median	17	25	7	9	58
Above Median	21	8	5	8	42
Total	38	33	12	17	100

$$\chi^2=7.19; \text{ d.f.}=3 \text{ N.S.}$$

TABLE 14.7.--Chi-Square Table for the WAS(COPES)  
Support Subscale

	Programme				
	A	B	C+D	E	Total
Below Median	28	26	6	5	65
Above Median	10	7	6	12	35
Total	38	33	12	17	100

$$\chi^2=14.67; \text{ d.f.}=3; p<.01$$

TABLE 14.8.--Chi-Square Table for the WAS(COPES)  
Spontaneity Subscale

	Programme				
	A	B	C+D	E	Total
Below Median	20	20	6	7	53
Above Median	18	13	6	10	47
Total	38	33	12	17	100

$$\chi^2=1.76; \text{ d.f.}=3 \text{ N.S.}$$

TABLE 14.9.--Chi-Square Table for the WAS(COPES)  
Autonomy Subscale

	Programme				Total
	A	B	C+D	E	
Below Median	25	23	10	2	60
Above Median	13	10	2	15	40
Total	38	33	12	17	100

$$\chi^2=21.03; \text{ d.f.}=3; p<.001$$

TABLE 14.10.--Chi-Square Table for the WAS(COPES)  
Practical Orientation Subscale

	Programme				Total
	A	B	C+D	E	
Below Median	15	19	5	9	48
Above Median	23	14	7	8	52
Total	38	33	12	17	100

$$\chi^2=2.68; \text{ d.f.}=3 \text{ N.S.}$$

TABLE 14.11.--Chi-Square Table for the WAS(COPES)  
Personal Problem Orientation Subscale

	Programme				Total
	A	B	C+D	E	
Below Median	8	26	3	11	48
Above Median	30	7	9	6	52
Total	38	33	12	17	100

$$\chi^2=28.04; \text{ d.f.}=3; p<.001$$

TABLE 14.12.--Chi-Square Table for the WAS(COPES)  
Anger and Aggression Subscale

	Programme				Total
	A	B	C+D	E	
Below Median	14	12	3	6	35
Above Median	24	21	9	11	65
Total	38	33	12	17	100

$$\chi^2=0.61; \text{ d.f.}=3 \text{ N.S.}$$

TABLE 14.13.--Chi-Square Table for the WAS(COPES)  
Order and Organization Subscale

	Programme				Total
	A	B	C+D	E	
Below Median	14	20	1	9	44
Above Median	24	13	11	8	56
Total	38	33	12	17	100

$$\chi^2=11.23; \text{ d.f.}=3; p<.05$$

TABLE 14.14.--Chi-Square Table for the WAS(COPES)  
Program Clarity Subscale

	Programme				Total
	A	B	C+D	E	
Below Median	23	29	6	5	53
Above Median	15	14	6	12	47
Total	38	33	12	17	100

$$\chi^2=4.98; \text{ d.f.}=3 \text{ N.S.}$$

TABLE 14.15.--Chi-Square Table for the WAS(COPES)  
Staff Control Subscale

	Programme				Total
	A	B	C+D	E	
Below Median	27	14	8	7	56
Above Median	11	19	4	10	44
Total	38	33	12	17	100

$$\chi^2=8.03; \text{ d.f.}=3; p<.05$$

Tables 14.6 through 14.15 show that Hypothesis 1B is confirmed for the following WAS(COPES) subscales: Support, Autonomy, Personal Problem Orientation, Order and Organization, and Staff Control. The Involvement subscale approaches significance but does not quite reach the acceptable level of .05. One should, however, be cautious in accepting the ability of the Support and Autonomy subscales to discriminate between the treatment

programmes, as they are associated with or correlated with patient characteristics that are differentially distributed between the treatment programmes.

The five subscales which do discriminate between the treatment programmes will be examined in more detail. In chapter 10, it was noted that the formula for the expected frequencies is  $(R \times C)/T$ ; where R is the Row total; C, the column total; and T, the total number of subjects. The observed frequencies are the numbers in each cell of the chi-square tables. It was pointed out that the larger the difference between observed and expected frequencies for each treatment programme, the greater the contribution that programme is making toward the overall value of chi-square.

For the Support subscale, the greatest deviation from observed frequencies seems to occur in programme E, followed by programme B. On the whole, it seems that no one programme is contributing overwhelmingly to the value of chi-square. However, programmes C + D do appear to be contributing least. For the Autonomy subscale, programme E appears to be contributing most toward the value of chi-square, with programme A contributing least. Programmes A and B are making a substantial contribution to the value of chi-square, relative to the other programmes, with respect to the Personal Problem Orientation subscale. For the Order and Organization subscale, programmes C + D and B seem to be making an almost equal contribution, while programme E seems to be making the least contribution. Lastly, for the Staff Control subscale, programme E

appears to be contributing least toward the value of chi-square, with the remaining programmes contributing more or less equally. Overall, it would appear that programmes A and B are contributing most toward the values of chi-square, although no firm overall pattern emerged from examining the data in this way.

Now that patient WAS(COPES) subscale scores have been subjected to statistical significance tests and have shown differences between the programmes with respect to perceived treatment milieu, it is useful to re-examine the mean subscale scores in table 14.5, in relation to what is known about each treatment programme (see chapter 8). This gives a rough indication of the validity of the patient perceptions. As in chapter 10, only the subscales which significantly discriminate between the treatment programmes will be considered.

Both programmes A and E are seen by patients as stressing Involvement. Both of these programmes, as pointed out earlier, do expect patients to make a considerable commitment toward their own treatment. Programme B is seen as relatively low, in relation to the other programmes, with respect to the degree of Involvement stressed in the treatment programme. This is consistent with what has already been noted about programme B. The programmes seem to be similar in their levels of perceived Autonomy, except programme E, whose patients score relatively higher on the Autonomy subscale. Since programme E is an outpatient programme, one would expect that much more stress would be placed on patient Autonomy, than in

the other programmes, which are all inpatient. Nevertheless, one might have expected (on prima facie grounds) the patients in programmes C and D to have scored higher on the Autonomy subscale since both of these programmes discourage undue dependency on the part of the patient toward the treatment programme. Patients in programme A score high on the Personal Problem Orientation subscale, relative to the other programmes. High scores on this subscale indicate that patients perceive the treatment programme as placing considerable emphasis on the discussion and examination of patients' personal problems. This is consistent with what has already been noted about programme A in chapter 8. Programme B scores very low on the Personal Problem Orientation subscale, relative to the other treatment programmes, indicating that patients see very little emphasis placed on the discussion of personal problems. This, again, is consistent with what was noted about programme B in chapter 8. Programme E also appears, according to the patients, to place relatively little emphasis on personal problems. As noted earlier, an emphasis on personal problems comes much later in the structure of programme E.

Patients in programme B are seen as perceiving their programme as showing relatively less emphasis on Order and Organization. This does not seem to be consistent with what is known about programme B, in that staff in this programme are highly concerned with order and with a smooth running programme. Patients in programme E also see somewhat less emphasis being placed on Order and

Organization. As mentioned in chapter 8, poor administration does make the programme seem disorganised. The fact that patients in all treatment programmes see their programmes as placing high emphasis on Order and Organization might be explained by certain aspects of the alcoholic's personality, which might cause certain aspects of a programme to be perceived uniformly, regardless of the treatment programme. Similarly, we note from table 14.5 that patients see the treatment programme as placing relatively little emphasis on Anger and Aggression, regardless of the treatment programme. Again, the lack of variation in the subscale scores, between the treatment programmes, might be explained by personality dynamics of the alcoholic. In chapter 2, we noted that one personality trait of the alcoholic is dependency. If the alcoholic is highly dependent on the treatment programme, it may be less likely that he would see the treatment as encouraging the expression of Anger and Aggression, for fear that he might be asked to leave treatment if he expresses hostility. Glatt (1969) noted that many patients enter treatment during a time of crisis. From the author's clinical experience, it has appeared that the patient's life, during this crisis period, is in a state of disorder. During this crisis time, the patient is often experiencing social, family and economic problems. Under the circumstances, the patient might expect treatment to provide some order to his life, or to at least give the patient a "rest" from a disordered environment. Given this possibility, it appears likely that the patient might, in the early



stages of treatment, perceive his programme as stressing Order and Organization, whether or not the programme actually does so. Thus, the high scores on the Order and Organization subscale (above 3.0) and the low scores on the Anger and Aggression subscale (below 1.75) in all the treatment programmes might be accounted for by personality dynamics of the alcoholic. Lastly, patients in programmes B and E score relatively high on the Staff Control subscale of the WAS(COPES). On the surface, one would expect this to be the case for programme B, but not for programme E. It must be remembered, however, that there is some degree of overlap in the staff from the two programmes. Also, many of the patients in programme E have had prior contact with programme B.

In short, while it would appear that there is considerable agreement for several of the WAS(COPES) subscales between what is known about the treatment atmosphere and how patients perceive it, there does appear to be some inconsistency, particularly in the case where patients perceive all programmes as stressing Order and Organization and placing little emphasis on the expression of hostility. Patient milieu perceptions also seem to be associated with their characteristics, although the associations do not appear marked. The fact that subjects' milieu perceptions are, to some extent, associated with their characteristics, is the major disadvantage of paper-and-pencil techniques for assessing milieus that ask subjects for their perceptions (James and Jones, 1974).

Section 14.5. Principal Component  
Analysis of Patient Milieu  
Perceptions

Patient WAS(COPES) subscale scores for the total patient population were subjected to a principal component analysis, to determine the underlying dimensional structure, if any, in patients' milieu perceptions. The matrix of Kendall's rank-order correlation coefficient, given in table 14.2, served as the starting point for the analysis. In all respects, the analysis, as well as its underlying rationale, was identical to that described in chapter 10. For this reason, the description will not be repeated. This section will test the following hypothesis:

Hypothesis 2B: The WAS(COPES) for patients in the five alcoholism treatment programmes will show a three-dimensional structure, corresponding to Relationship, Personal Development and Systems Maintenance-Systems Change, when the patient responses are subjected to a principal component factor analysis.

The above three dimensions are the hypothetical structure for the WAS and COPES that has been described by Moos (1974). The principal component analysis revealed three components, which accounted for 49.7 percent of the total variance, with eigenvalues of 1.0 or greater. The varimax-rotated factor loadings are presented in table 14.16.

It would appear that the first component is a general one, loading high on several subscales. There is no indication that the component is similar to any of Moos's (1974) hypothetical underlying dimensions, as it does not load highly on any group of subscales that is characteristic

TABLE 14.16.--Varimax-Rotated Principal Component Loadings for Patient WAS(COPES) Subscale Scores

N=100

WAS(COPES) Subscale	Principal Component Loadings		
	Component 1	Component 2	Component 3
I	.64643	.32873	.00762
S	.53528	.47168	.05188
SP	.27199	.08165	.70474
AUT	.21769	.46287	.29069
PO	.60607	-.03410	.21526
PPO	.66762	-.23456	.16617
AA	.13015	-.11962	-.66170
OO	.63648	.14953	-.08289
PC	.20593	.51859	.46277
SC	-.77838	.77567	-.10898

of one of Moos's dimensions. Components 2 and 3 also present difficulties in interpretation. Component 2 loads high on the Autonomy and Staff Control subscales. On the surface, these two subscales would seem to be opposite in nature. There is no a priori reason why the principal component analysis should group them together. Similarly, component 3 loads high on both the Spontaneity subscale, which involves the spontaneous expression of feeling, and low Anger and Aggression. As with component 2, this combination would appear to be unreconcilable, or at best, unexplainable. It would seem, then, that the underlying structure, as revealed by the principal component analysis, makes little sense and does not conform to Moos's hypothetical structure. Hypothesis 2B is therefore not accepted. If we examine the structure of the staff perceptions (table 10.16) and compare the dimensional structure to that of the patients (table 14.16), we see that patients and staff show different dimensional structures. This is consistent with research by Graham et al.

(1971b, 1971c) and Allon et al. (1971), who have noted that patients and staff show different factor structures with respect to milieu perception. Because the principal component analysis of the patient responses failed to reveal a meaningful dimensional structure, patient responses to the WAS(COPES) will not be transformed into factor scores, as was the case in chapter 10.

#### Section 14.6. Summary

Patient subscale scores on the version of the WAS (COPES) used in the present study were found to be relatively independent of each other. Patient subscale scores were found to be associated with certain patient characteristics.

A median test (Siegel, 1956) revealed that the Support, Autonomy, Personal Problem Orientation, Order and Organization, and Staff Control subscales were able to discriminate between patients' milieu perceptions in the five treatment programmes. Hypothesis 1B was therefore confirmed for the above subscales. One should be cautious, however, in accepting the ability of the Support and Autonomy subscales to discriminate between the treatment programmes. Since both of these subscales are associated with patient characteristics that are differentially distributed between the treatment programmes, it is possible that the ability of the subscales to show differences between the treatment programmes might be due to the patient characteristics, rather than to the treatment milieux.

A principal component analysis of patient WAS(COPES) subscale intercorrelations did not reveal a meaningful dimensional structure which corresponded to Moos's hypothetical structure of a Relationship, a Personal Development and a Systems Maintenance-Systems Change dimension. Hypothesis 2B was therefore not accepted.

## CHAPTER 15

### Patient Social Functioning, Orientation

### Toward Alcohol, and Drinking Status

### Index Scores

#### Section 15.1. Introduction

This chapter is concerned with the data analysis of three outcome variables: the Clarke Adjustment Scale (CAS), the Alcadd scale, and the drinking status index score. The version of the CAS used in the present study assesses patient social functioning in three areas: Employment Functioning (E), Interpersonal Functioning (IN), and Psychological Functioning (PSY) (see chapter 9). Higher scores on the three CAS subscales indicate better functioning. The version of the Alcadd scale used in the present study assesses patients' orientation toward alcohol on two subscales. These are Preference of Drinking over Other Activities (P), which is also called the Preference subscale, and Rationalization of Drinking (R), which is also called the Rationalization subscale. Of the five Alcadd subscales, these two were chosen on prima facie grounds, because it was thought that they represent a crude way of measuring elements that pertain to how an alcoholic orients his life toward the consumption of alcohol. One might also say that the P and R subscales of the Alcadd give a crude indication of

an alcoholic life-style. The inclusion of these instruments as outcome variables rests on the assumption that it is an important goal of treatment to bring about improvement in patient social functioning and a decrease in patient orientation toward alcohol. A high score on the P and R subscales of the Alcadd indicates preference toward drinking and a high degree of rationalisation concerning one's drinking behaviour. The third outcome measure is patient drinking status, which is indicated on a three-point scale. The higher the drinking status index score, the less the patient is drinking. CAS and Alcadd subscale intercorrelations, as well as the relationship between CAS subscale scores, Alcadd subscale scores and drinking status index scores, will be discussed. Lastly, the relationship between patient perception of treatment milieu and the outcome variables will also be noted. It should be noted that mean CAS or Alcadd subscale scores will not be given in this chapter. In order to avoid redundancy, they will be presented in chapter 17, which gives the results of t-tests for the differences between mean CAS and Alcadd subscale scores obtained at the admission, discharge and follow-up interviews.

Material presented in this chapter is for one hundred patient subjects, who stayed in treatment long enough to be considered usable subjects (see chapter 9). One might raise the point, however, that including only usable subjects injects a systematic bias, in that it ignores data obtained from patients who left treatment prematurely. A one-way analysis of variance, comparing those subjects who



left treatment early with those who remained, revealed no significant difference in CAS or Alcadd subscale scores obtained from data collected during the first interview. A chi-square analysis, comparing the distribution of drinking status index scores for both groups, indicated no significant difference. Therefore, it seemed permissible to present data only for those subjects who remained in treatment for the time period previously stated.

Section 15.2. Drinking Status  
Index Scores Obtained at the  
Admission and Follow-up  
Interviews

Table 15.1 presents the distribution of drinking status index scores obtained at the admission and follow-up interviews. For thirty-two of the ninety-two patients for whom a follow-up drinking status index score was available, the information was obtained from a source other than the patient (see chapter 9). This was necessitated by the patient's failure to attend a follow-up interview or inability to be contacted by telephone.

TABLE 15.1.--Distribution of Patient Drinking Status Index Scores Obtained at the Admission and Follow-up Interviews

	Admission	Follow-Up
	N=100	N=92
<u>Score</u>	<u>Number of Patients</u>	<u>Number of Patients</u>
Three	3	27
Two	48	31
One	49	34

The drinking status index score obtained at the admission interview applied to the ten weeks prior to that

interview, while the follow-up drinking status index score applied to the ten-week follow-up period. As can be seen from table 15.1, the value of one was the most common drinking status index score, both for the pre-admission and follow-up periods. A value of one was assigned when patients drank on either the day of admission or the day of the follow-up interview, or drank constantly during the follow-up period. There was also a substantial increase between the admission and follow-up interviews in the number of patients obtaining a score of three. This value indicated that a patient was abstinent during the ten weeks prior to the first interview, or the ten weeks prior to the follow-up interview.

Section 15.3. The Relationship  
between CAS Subscale Scores,  
Alcadd Subscale Scores and  
Drinking Status Index Scores

Tables 15.2 through 15.4 present the Kendall rank-order correlation coefficients between the CAS subscale scores, Alcadd subscale scores and drinking status index scores, obtained at the admission, discharge and follow-up interviews, respectively. Kendall's rank-order correlation coefficient was used because it has the advantage of avoiding any parametric assumptions about the variables.

The negative correlation between CAS and Alcadd subscale scores in tables 15.2 through 15.4 are brought about by the reversed direction in the scoring of the two instruments, in that a higher score on the Alcadd subscales, rather than a lower score, is indicative of a more negative response. Similarly, the negative correlation

TABLE 15.2.--Correlations between CAS Subscale Scores,  
Alcadd Subscale Scores and Drinking Status Index Scores(DS)  
Obtained during the Admission Interview  
(decimal points omitted)

N=100

	E	IN	PSY	P	R	DS
E						
IN	22**					
PSY	34**	39**				
P	-21**	-32**	-32**			
R	-25	-14*	-12*	39**		
DS***	05	-01	05	-21**	-26**	

\*p<.05

\*\*p<.01

\*\*\*N=99

TABLE 15.3.--Correlations between CAS Subscale Scores  
and Alcadd Subscale Scores Obtained during the Discharge  
Interview  
(decimal points omitted)

N=100

	E	IN	PSY	P	R
E					
IN	26**				
PSY	32**	37**			
P	-25**	-12*	-31**		
R	-25**	-09	-25**	23**	

\*p<.05

\*\*p<.01

TABLE 15.4.--Correlations between CAS Subscale Scores,  
Alcadd Subscale Scores and Drinking Status Index Scores  
Obtained during the Follow-Up Interview  
(decimal points omitted)

N=58

	E	IN	PSY	P	R	DS
E						
IN	40**					
PSY	45**	44**				
P	-11	-20*	-24**			
R	-28**	-28**	-41**	43**		
DS	25**	22**	38**	-39**	-46**	

\*p<.05

\*\*p<.01

between a patient's drinking status index score and his Alcadd subscale scores is also brought about by a reversal in scoring. All three correlation matrices would suggest that patients who perceive themselves as showing greater social functioning (higher CAS subscale scores) also perceive themselves as showing less preference for drinking (lower P subscale scores) and less rationalisation regarding one's drinking behaviour (lower R subscale scores). In the case of data obtained at the admission interview, the subject's drinking status index score was independent of his CAS subscale scores. For information obtained at the follow-up interview, patients with a higher drinking status index score (indicative of less drinking) were more likely to show higher Employment, Interpersonal and Psychological Functioning subscale scores. This is consistent with Emrick (1974), who noted a similar relationship between measures of drinking and other areas of functioning, such as work, health, interpersonal relationships, etc. If we examine table 15.4, we see that the correlation between the drinking status index score and the patient's score on the Psychological Functioning subscale is higher than the correlation between the drinking status index score and the two other CAS subscales. The lower level of correlation for the E and IN subscales might best be understood in terms of the relative stability of these variables. It could be argued that, within the first ten weeks following discharge, one's employment functioning and one's interpersonal functioning (particularly with significant others) might not have improved to

the same degree as one's perception of one's psychological functioning. Glatt (1969) and Mullin (1975) have noted that improvement in interpersonal functioning takes some time to develop. Also, it has been the clinical experience of the present author that many patients do not return to work immediately following discharge from hospital. The fact that patients might still not have been working at the time of the follow-up interview might account for the stability of one's perceived employment functioning.

It should also be noted that the CAS and Alcadd subscales appear to be significantly intercorrelated at admission, discharge and follow-up. The increase in the subscale intercorrelations at follow-up might be due to practice effects, in that this was the third time CAS and Alcadd items were read to patients. The subscale intercorrelations, however, did not appear to be very large. For this reason, it was thought permissible to examine each subscale separately, rather than using a total score for the CAS and Alcadd. Having separate subscale scores, rather than the total score, offers the advantage of allowing one to isolate areas of social functioning or orientation towards alcohol that might be of particular importance.

#### Section 15.4. The Relationship between CAS Subscale Scores, Alcadd Subscale Scores, Drinking Status Index Scores and Patient Milieu Perception

In order to learn more about how patients come to

perceive their treatment milieu, it is interesting to examine correlates of milieu perception with respect to social functioning, orientation toward alcohol and drinking status index scores. As before, Kendall rank-order correlation coefficients were used as a measure of relationship. Tables 15.5 and 15.6 present Kendall rank-order correlation coefficients for the relationship between WAS (COPES) subscale scores, CAS subscale scores and Alcadd subscale scores, obtained at the admission and discharge interviews, respectively. Table 15.5 also includes the drinking status index score, which was not obtained during the discharge interview.

It appears from tables 15.5 and 15.6 that the greater the patients' perceived social functioning, as measured in terms of the E, IN and PSY subscale scores, the more positively is the treatment milieu perceived by the patients. The general exception to this is the Anger and Aggression (AA) subscale of the WAS(COPES). In this instance, the lower the perceived social functioning, the greater the patient's score on the AA subscale. Perhaps patients see Anger and Aggression, at this point, as being damaging to their social functioning. Moos (1974) has hypothesized that patients are uncomfortable in expressing anger and aggression while still in the institution. If the expression of anger and aggression causes anxiety, then perhaps (in the case of the second interview) this anxiety results in a lower level of perceived social functioning.

Considering the P and R subscales, there is a negative

TABLE 15.5.--Correlations between CAS Subscale Scores, Alcadd Subscale Scores,  
Drinking Status Index Scores Obtained at the Admission Interview and WAS(COPES)  
Subscale Scores  
(decimal points omitted)

N=100

	I	S	SP	AUT	PO	PP0	AA	00	PC	SC
E	01	12*	10	08	08	05	-09	03	03	05
IN	18**	20**	16**	06	15*	09	-12*	04	13*	-03
PSY	02	15*	07	02	15*	05	-04	-01	10	02
P	-11*	-06	-10	-09	-11*	-13*	01	08	-08	02
R	00	04	-06	-15*	-08	-08	-03	02	07	08
DS***	06	05	-06	31**	-09	-01	00	-02	14*	08

\*p<.05

\*\*p<.01

\*\*\*N=99



TABLE 15.6.--Correlations between CAS Subscale Scores, Alcadd Subscale Scores  
Obtained at the Discharge Interview and WAS(COPES) Subscale Scores  
(decimal points omitted)

N=100

	I	S	SP	AUT	PO	PPO	AA	00	PC	SC
E	09	16**	15*	13*	15*	12*	-17**	07	16**	05
IN	12*	07	15*	01	08	02	-22**	-05	18**	01
PSY	18**	19**	18**	02	24**	13*	16**	13*	15*	-03
P	-15*	-18**	-14*	-15*	-03	-13*	09	-02	-10	-06
R	-04	-09	-11*	-04	-14*	-16**	04	09	05	06

\*p<.05

\*\*p<.01

correlation between these Alcadd subscale scores and the WAS(COPES) subscale scores. The negative correlation arises from the fact that lower Alcadd scores are indicative of a lower orientation toward alcohol. One might, therefore, conclude that patients with a lower orientation toward alcohol at the time of discharge tend to perceive the ward in more positive terms. Again, the main exception is for the Anger and Aggression subscale of the WAS (COPES). The same explanation that accounted for its relationship to perceived social functioning would seem to apply in the case of perceived orientation toward alcohol. It would also appear that patients' perception of Staff Control in the treatment milieu is independent of either patient perceived social functioning or orientation toward alcohol. Lastly, we see from table 15.5 that the drinking status index score obtained at the admission interview is correlated with the Autonomy and Program Clarity subscales of the WAS(COPES). The higher the drinking status index score (indicating less drinking), the more the patient sees the treatment programme as stressing Autonomy and Program Clarity. Perhaps patients who have drunk less are better able to be more independent of the treatment programme and might also be in a better position to have a clearer idea about the treatment programme; hence, the higher scores on the Autonomy and Program Clarity subscale of the WAS(COPES).

#### Section 15.5. Summary

CAS subscales and Alcadd subscales were shown to be

moderately intercorrelated. Because the correlations were not very large, it was considered allowable to consider the subscale scores rather than having a total score for each instrument. Patients who had a higher drinking index score (indicating less drinking) reported a higher level of perceived social functioning and a lower level of orientation toward alcohol. Patients who saw the treatment milieu in more favourable terms generally also reported higher levels of perceived social functioning and lower orientation toward alcohol. The main exception to this was the Anger and Aggression subscale of the WAS (COPES). It is possible that patients might perceive expression of hostility as deleterious to their social functioning, because of the anxiety that such an expression might cause.

## CHAPTER 16

### Patient Behaviour During the Follow-up Period

#### Section 16.1. Introduction

Information was obtained at the follow-up interview on several variables which are concerned with patient behaviour<sup>1</sup> during the follow-up period. The distribution of the categories of each behavioural variable is presented in section 16.2. The distribution presented in the next section includes data obtained from the treatment agencies and significant others. For this reason, the number of responses for each variable will be different, as an agency or significant other was not always able to furnish the needed information. Although the follow-up data from all sources are presented in table 16.1, only responses obtained from patients, either by a direct follow-up interview (N=48) or a telephone interview (N=12), were used in subsequent analysis. This ensured that all the data collected would be based on the same number of responses. The telephone interview was identical to the follow-up interview. Patients were only interviewed by telephone when they failed to attend a follow-up appointment. It should be noted that some of the variables collected during the follow-up interview were not included in the analysis, since it was felt that they provided information that was obtained from other

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<sup>1</sup>Behaviour, in this context, means behaviour indicating alcohol consumption or treatment contact.

variables (e.g., one knows from the length of abstinence during the follow-up period whether or not a subject made an attempt at abstinence during the follow-up period) or because the variables were not related to patient behaviour during the follow-up period. Only the variables indicated in section 16.2 will be used in subsequent analysis.

Although the behavioural variables used in the present study are not directly considered to be outcome variables, they do measure important areas of patient functioning that are, in themselves, related to treatment goals. For this reason, they will be included in this chapter, as well as in subsequent analyses. This chapter will note the distribution of the behavioural variables, as well as examining whether there is a relationship of WAS(COPES), Alcadd and CAS subscale scores, and patient drinking status index scores to patients' behaviour during the follow-up period. In this way, it might be possible to identify important determinants of patients' subsequent behaviour.

#### Section 16.2. Distribution of Behavioural Variables

Table 16.1 presents a distribution of behavioural variables that assess behaviour during the follow-up period.

TABLE 16.1.--Distribution of Behavioural Variables

<u>Variable</u>	<u>Number</u>	<u>Percent</u>
<u>Abstinence Length</u> <u>during Follow-Up (ABS)</u>		
Less than 1 day	5	4.0
1 day-1 week	3	2.4
1 week-2 weeks	6	4.8
2 weeks-5 weeks	10	8.1
5 weeks-7 weeks	4	3.2
7 weeks-9 weeks	12	9.7
10 weeks	28	22.6
<u>Frequency of Drinking</u> <u>during Follow-Up (FDR)</u>		
Never	26	21.0
Once	8	6.4
Twice	5	4.0
Three times	6	4.8
Four times	1	0.8
Five times or more	21	16.9
<u>Number of Bouts</u> <u>during Follow-Up (NB)</u>		
None	50	40.3
One	9	7.3
Two	2	1.6
Five or more	6	4.8
<u>Mean Bout Length (days)</u> (BL=Bout Length)	1.66	
<u>Mean Number of Sessions</u> <u>Attended during Follow-</u> <u>Up Period</u> (NS=Number of Sessions)	7.08	

Section 16.3. The Relationship  
between Behavioural Variables  
and Patient WAS(COPES)  
Subscale Scores

The behavioural variables were coded as ordinal, rather than continuous. For this reason, Kendall's rank-order correlation coefficient was used as a measure of association. The Kendall rank-order correlations between WAS(COPES) subscale scores and behavioural variables are presented in table 16.2. The abbreviations for the

TABLE 16.2.--Correlations between Patient WAS(COPES) Subscale Scores and Behavioural Variables  
(decimal points omitted)  
N=59

	I	S	SP	AUT	PO	PPO	AA	OO	PC	SC
ABS	-01	10	-10	-02	08	23**	03	08	24**	07
FDR	03	-18*	02	-03	-08	12	-12	-12	-21**	-04
BL	05	-09	-01	11	06	-23**	-22**	17*	-04	14
NB	09	-09	02	15*	09	-17*	-18*	04	00	11
NS	-07	01	01	05	-07	01	01	01	10	21**

\*p<.05  
\*\*p<.01



behavioural variables given in table 16.2 have already been indicated in table 16.1.

One case was deleted from the sample because of missing values. This procedure insured that all correlations were based on the same number of cases. One sees from table 16.2 that all WAS(COPES) subscales are significantly associated to some extent with behaviour during the follow-up period, with the exception of the Involvement (I), Spontaneity (SP) and Practical Orientation (PO) subscales. Within the group of subscales that are associated with follow-up behaviour, there are some that are more important than others (importance measured in terms of the number of significant correlations). The most important WAS(COPES) subscale under these criteria would be the PPO subscale, followed by the PC subscale, followed by the AA subscale. One must accept the above findings with caution, as the number of significant correlations might be partially due to the possible intercorrelation of the various measures of drinking behaviour.

#### Section 16.4. Relationship between Behavioural Variables, CAS Subscale Scores, Alcadd Subscale Scores and Drinking Status Index Scores

If there is a correlation between behavioural variables and outcome variables, this would add to the importance of the outcome variables. Not only would the outcome variables be important from a theoretical perspective, but they would relate to actual behaviour as well.

In order to test the possible relationship between outcome variables and behavioural variables obtained at

the follow-up interview, rank-order correlations were computed for the relationship between the two types of variables. The values of Kendall's tau for the relationship between behavioural variables and outcome variables are presented in table 16.3.

TABLE 16.3.--Correlations between Behavioural Variables and CAS Subscale Scores, Alcadd Subscale Scores and Drinking Status Index Scores Obtained at the Follow-Up Interview

(decimal points omitted)

N=58

	E	IN	PSY	P	R	DS***
ABS	23**	28**	37**	-33**	-40**	78**
FDR	-20*	-19*	-34**	37**	36**	-77**
BL	-30**	-29**	-36**	17**	44**	-33**
NB	-31**	-27**	-35**	25**	50**	-43**
NS	-16*	10	06	-30**	-13*	23**

\*p<.05

\*\*p<.01

\*\*\*N=59

The decrease in the number of cases in the above table is due to missing values. It can be seen from table 16.3 that the outcome variables obtained at the follow-up interview correlate with behaviour during the follow-up period. This would tend to strengthen the validity of the outcome variables. It is possible that Alcadd subscale scores show high correlation with behavioural measures because Alcadd items are often worded in behavioural terms. For example, an item such as "If I had a choice, I would rather go for a meal than drink" does incorporate behavioural elements.

Several authors (Ritson, 1969; Towle, 1974; Pheffer, 1957; Gertler et al., 1973; Gillis and Keet, 1969; Freeman

and Hopwood, 1968; Pokorny, 1973) have noted the importance of continuing attendance in the treatment programme. The fact that drinking status at follow-up is positively associated with the number of sessions (outpatient or AA) attended during the follow-up period supports their contention. It is also interesting to note other variables that were correlated with the number of sessions attended during the follow-up period. The lower the patient perceived employment functioning at follow-up, the more likely he was to have attended treatment sessions during the follow-up period. Perhaps the patient who perceives low employment functioning feels in danger of losing his job and is, therefore, continuing to attend treatment. Alternatively, a patient might have recently lost a job, which brings about pressure from the spouse or relatives to attend treatment, or leads to motivation on the part of the patient (Finlay, 1972). Another finding is that the number of sessions attended is related to the patient's orientation toward alcohol. Patients who, at the time of follow-up, expressed a greater preference for alcohol and a greater rationalisation regarding their drinking behaviour attended fewer sessions during the follow-up period. This is not surprising, in that it would seem unlikely for a patient to continue in treatment if he has not developed a lower orientation towards alcohol by the time of follow-up. Lastly, we see from table 16.2 that the number of sessions attended is correlated with subscale scores on the Staff Control subscale of the WAS(COPES). The greater the number of sessions

attended during the follow-up period, the greater the patient's perception of the treatment milieu as stressing Staff Control. Perhaps alcoholic patients, because of their dependency needs (which have already been noted), may be continuing to attend treatment because they perceive the staff as being in a position of authority; hence, the high score on the Staff Control subscale.

Although behaviour during follow-up is an important indication of treatment effectiveness, it is not the only criterion of such effectiveness. Moreover, although high social functioning, low orientation toward alcohol and abstinence at the time of follow-up are important goals of treatment, they are not the way in which treatment effectiveness, or comparative effectiveness, will be assessed in the present study. While one could undoubtedly use these treatment goals as a measure of treatment success, it seems more reasonable to assess the effectiveness of treatment in terms of whether or not the treatment produces change in the outcome criteria over a stated period of time. Using change as a criterion has the advantage of using more information, i.e., both admission data and follow-up data. It has the disadvantage of being more difficult to measure and interpret. However, the advantages outweigh the disadvantages, although Cronbach and Furby (1970) would tend to argue otherwise. Moreover, using change as a criterion does seem to be more suited to the present study. One of the reasons for selecting a short follow-up period was that it enables one to isolate the effects of treatment. In terms of this rationale,

change would seem to be a more appropriate criterion of treatment effectiveness than looking at the outcome variables at the time of the follow-up interview. Data regarding change in outcome variables will be presented in subsequent chapters.

#### Section 16.5. Summary

The present chapter examined the relationship of behaviour during the follow-up period to patients' perception of the treatment milieu and the outcome variables obtained during the follow-up period. All WAS(COPES) subscales, except the Involvement, Spontaneity and Practical Orientation subscales, correlate to some extent (at least the .05 level) with behaviour during the follow-up period. Patients who perceive their treatment programmes as oriented toward dealing with personal problems show a greater length of abstinence, a lower number of bouts, and a shorter length of bouts, if there are any. Patients who perceive their programmes as stressing programme clarity have a longer length of abstinence and a lower frequency of drinking. Patients who perceive their programmes as stressing the expression of anger and aggression report fewer and shorter bouts. Behavioural variables were found to be highly correlated with outcome measures, suggesting that outcome measures used in the present study are valid indicators of treatment outcome. It was noted that patient perception of low employment functioning, low orientation toward alcohol and high Staff Control were associated with greater treatment contact

during the follow-up period. This might be important, given that several authors have noted the importance of maintaining treatment contact during the follow-up period.

## CHAPTER 17

### Changes During and Following Treatment in Patient Social Functioning and Orientation Toward Alcohol

#### Section 17.1. Introduction

As mentioned earlier, changes in social functioning and orientation toward alcohol are seen as important goals of alcoholism treatment. Since these two areas of patient functioning are assessed by the CAS and Alcadd subscale scores respectively, the present chapter will then examine changes in CAS and Alcadd subscale scores. Changes will be assessed over three time periods. The first time period is between the admission interview and the discharge interview; the second is between the admission interview and the follow-up interview; and the third, between the discharge interview and the follow-up interview.

This analysis differs from most previous studies in that it includes changes while in treatment and changes subsequent to treatment through follow-up. This has the advantage of permitting one to assess what is happening to the patient while in the course of treatment, as well as being able to see whether or not changes are maintained after discharge. As mentioned before, programme E, an outpatient programme, does not generally fit into this model, in that there is not a fixed discharge. In order



to include programme E, it was necessary, arbitrarily, to define the first three weeks as the time between admission and discharge and the subsequent time as post-discharge. Although this produces some biases, in that treatment is in actuality still continuing, it allows the treatment programmes approximate equality with respect to length of treatment contact. This bias is not as great as it might seem, in that patients in other treatment programmes are encouraged to make contact with a treatment programme following discharge. It is, therefore, possible for patients in all treatment programmes to receive some type of treatment after discharge. Changes in drinking status index scores for each treatment programme will also be briefly noted.

Section 17.2. Changes in CAS and Alcadd Subscale Scores between the Admission and Discharge Interviews for All Treatment Programmes

The Mean CAS and Alcadd Subscale Scores obtained during the admission and discharge interviews, along with corresponding standard deviations and values of  $t$  from a  $t$ -test for correlated means are presented in table 17.1. It would appear from the evidence presented in table 17.1 that, for patients taken as a whole, there is a considerable change between the admission and discharge interviews on CAS and Alcadd subscales, except for the Employment Functioning (E) subscale. This is understandable, in that patients who are in hospital are at least temporarily unemployed (for the duration of their hospital stay) and therefore would have little opportunity to alter

TABLE 17.1.--Mean CAS and Alcadd Subscale Scores for Admission and Discharge with Corresponding Standard Deviations and Values of  $t$  from a  $t$ -Test between Correlated Means

N=100

Subscale	Admission		Discharge		$t$
	Mean	SD	Mean	SD	
E	8.25	3.13	8.46	3.38	1.12
IN	11.12	3.63	12.51	3.10	4.43**
PSY	10.57	4.55	14.01	4.64	7.62**
P	5.24	1.88	2.84	2.06	-10.57**
R	7.07	2.33	5.33	2.47	-7.47**

\* $p < .05$  one-tailed

\*\* $p < .01$  one-tailed

perceptions regarding their employment functioning. The same would apply to outpatients in programme E. Patients who are unemployed at the time of contact with programme E are not encouraged to return to work during the initial weeks of treatment. Like other patients, they would therefore have little opportunity to change their perception with respect to employment functioning.

The drop in Alcadd subscale scores between admission and discharge is indicative of less orientation toward alcohol and, hence, improvement. One should not, therefore, be confused by the negative values of  $t$  for these subscales.

### Section 17.3. Changes in CAS and Alcadd Subscale Scores between the Admission and Discharge Interviews for Each Treatment Programme

Much of the analysis concerning outcome variables pools the data for all five treatment programmes. It is, however, fruitful to examine changes in outcome variables made by patients in each treatment programme, so that

some comparison can be made concerning the relative effectiveness of the treatment programmes. This section will test the following hypothesis:

Hypothesis 6A: Taking each treatment programme separately, patients will demonstrate a significant improvement in social functioning, as measured by the CAS subscales, and a significant decrease in orientation toward alcohol, as measured by the P and R Alcadd subscales, between the admission and discharge interviews.

The mean CAS and Alcadd subscale scores, obtained during the admission and discharge interviews, and the corresponding values of  $t$  from a t-test for correlated means for each treatment programme are presented in table 17.2. Values of  $F$ , from a one-way analysis of variance comparing differences in mean CAS and Alcadd subscale scores between the treatment programmes for both admission and discharge data, are also presented in table 17.2. Corresponding standard deviations will not be presented because of space limitations.

From the results of the one-way analysis of variance given in table 17.2, it can be seen that there are no significant differences in mean CAS or Alcadd admission subscale scores between the treatment programmes. This means that differences in the magnitude of change in subscale scores from admission to discharge between the treatment programmes cannot be attributed to the differences with respect to admission subscale scores, between the treatment programmes. Hypothesis 6A is confirmed for programmes A and B with respect to the IN and PSY subscales of the Clarke Adjustment Scale (CAS) and for the P and R Alcadd subscales. It is confirmed for programmes

TABLE 17.2.--Mean CAS and Alcadd Subscale Scores for Admission and Discharge, Corresponding Values of  $t$  from a  $t$ -Test between Correlated Means and F Values from a One-Way Analysis of Variance Comparing Differences in CAS and Alcadd Subscale Means between Treatment Programmes

Treatment Programme															
A				B				C+D				E			
N=38				N=33				N=12				N=17			
ADM	DIS	<u>t</u>		ADM	DIS	<u>t</u>		ADM	DIS	<u>t</u>		ADM	DIS	<u>t</u>	F Values <sup>a</sup>
E	8.68	8.74	0.20	7.43	7.57	1.09		8.25	8.00	-0.52		8.88	9.88	1.57	1.08/1.97
IN	11.66	12.68	2.18*	10.73	12.67	3.62**		10.83	11.50	0.92		10.88	12.53	1.66	0.97/0.49
PSY	11.34	14.21	4.80**	9.88	13.48	4.73**		9.41	13.42	2.14*		11.00	15.00	3.23**	0.97/0.48
P	5.10	2.68	-7.29**	5.64	3.15	-6.19**		5.33	3.33	-2.75*		4.70	2.23	-3.85**	0.68/1.04
R	6.97	4.84	-5.43**	7.85	5.85	-5.79**		6.83	5.50	-2.07*		5.94	5.29	-1.02	1.22/1.00

<sup>a</sup>Between groups d.f.=3; within groups d.f.=96; F value for differences between admission subscale means/ F value for differences between discharge subscale means

\* $p < .05$  one-tailed

\*\* $p < .01$  one-tailed

C and D in the case of the PSY subscale of the CAS and for the two Alcadd subscales. For programme E, Hypothesis 6A is confirmed with respect to the Psychological Functioning (PSY) subscale of the CAS and for the Preference (P) subscale of the Alcadd. One should be cautious in accepting these findings. Hoffman et al. (1974) have noted that patient reports of improved functioning between admission and near discharge might be a function of improvement in their physical condition rather than an improvement in their psychological or social functioning. Meltzoff and Kornreich (1970) have noted that patients may report unrealistically good functioning at the time of discharge, because they might feel grateful for having received treatment. We have already noted that Mullin (1975) has indicated that patients' social functioning takes a long time to improve. Glatt (1969) indicated that many patients in the early stages of treatment cannot fully accept the need to give up alcohol. In light of the above research, it was felt that the large gains in social functioning and the large reduction in orientation toward alcohol shown by patients between admission and discharge might be invalid. Given this possibility, it was decided to concentrate on changes between both admission and follow-up and discharge and follow-up interviews, and not to examine any further changes in patient social functioning and orientation toward alcohol between the admission and discharge interviews.

Section 17.4. Changes in CAS and Alcadd Subscale Scores between the Admission and Follow-Up Interviews for All Treatment Programmes

Mean CAS and Alcadd subscale scores for admission and follow-up along with corresponding values of  $t$  from a t-test for correlated means are presented in table 17.3. Corresponding standard deviations are also presented.

TABLE 17.3.--Mean CAS and Alcadd Subscale Scores for Admission and Follow-Up with Corresponding Standard Deviations and Values of  $t$  from a t-Test between Correlated Means

N=60

Subscale	Admission		Follow-Up		$t$
	Mean	SD	Mean	SD	
E	8.25	3.13	8.23	3.43	-0.62
IN	11.12	3.63	11.93	3.01	1.43
PSY***	10.57	4.55	14.63	5.12	5.75**
P	5.24	1.88	2.05	1.83	-8.85**
R	7.07	2.33	4.62	2.52	-5.48**

\* $p < .05$  one-tailed

\*\* $p < .01$  one-tailed

\*\*\*N=59

From the data presented in table 17.3, it appears that there is a significant change in all subscales except the Employment Functioning and Interpersonal Functioning subscales of the CAS. The figures in the above table would seem to suggest that a patient's perceived employment functioning and interpersonal functioning might be more resistant to change, as a function of short-term treatment, than a patient's perceived psychological functioning, or orientation toward alcohol. The finding that social functioning is more resistant to change than orientation toward alcohol is consistent with the work of



Gillis and Keet (1969) and Krasnoff (1973), who note the relative ability of short-term intervention to bring about changes in orientation toward alcohol.

Section 17.5. Changes in CAS and Alcadd Subscale Scores between the Admission and Follow-Up Interviews for Each Treatment Programme

This section will test the following hypothesis:

Hypothesis 6B: Taking each treatment programme separately, patients will demonstrate a significant improvement in social functioning, as measured by the CAS subscales, and a significant decrease in orientation toward alcohol, as measured by the P and R Alcadd subscales, between the admission and follow-up interviews.

The mean CAS and Alcadd subscale scores obtained during the admission and follow-up interviews and the corresponding values of  $t$  from a t-test for correlated means for each treatment programme are presented in table 17.4. As before, standard deviations in CAS and Alcadd subscale means for each treatment programme will not be presented because of space limitations.

We see from table 17.4 that Hypothesis 6B is confirmed for the PSY subscale of the CAS and for both Alcadd subscales in the case of programmes A, E and B. The hypothesis is not confirmed for patients in programmes C and D.

It would appear from table 17.4 that patients in programmes A and E show slightly greater improvement in their perceived psychological functioning than patients in programme B, although the differences are not great. Patients in all programmes, except C and D, show a reduction in their orientation toward alcohol, as measured by



TABLE 17.4.--Mean CAS and Alcadd Subscale Scores for Admission and Follow-Up and Corresponding Values of  $t$  between Correlated Means and F Values from a One-Way Analysis of Variance Comparing Differences in CAS and Alcadd Subscale Means between Treatment Programmes

	Treatment Programme											
	A				B				C+D			
	ADM	FU	$t$		ADM	FU	$t$		ADM	FU	$t$	
	N=24				N=17				N=5			
E	9.37	9.83	1.09		6.76	6.41	-0.48		8.60	7.20	-0.74	
IN	11.25	12.65	1.70		10.53	10.82	0.21		10.40	12.40	1.75	
PSY	10.56	16.17	4.98**		10.41	12.53*	1.85*		9.80	12.00	1.24	
P	5.21	1.79	-7.29**		5.53	2.65	-4.43**		4.60	3.40	-1.18	
R	6.62	3.83	-5.00**		7.53	6.06	-2.29*		6.66	6.00	-0.56	
									ADM	FU	$t$	F Values <sup>a</sup>
									9.28	8.25	-0.77	2.98*/4.93**
									11.71	11.93	0.17	0.27/0.15
									12.50	15.00	2.78*	0.94/2.03
									4.43	1.28	-3.55**	0.89/2.32
									5.71	3.71	-2.15*	1.42/1.05

<sup>a</sup>Between groups d.f.=3; within groups d.f.=56; F value for differences between admission subscale means/ F value for differences between discharge subscale means

\*p<.05 one-tailed      \*\*p<.01 one-tailed

the P and R Alcadd subscales. Patients in programme A show the greatest reduction, with very little difference between patients in programmes B and E. On the whole, it would appear that patients in programme A show some superiority to patients in the other treatment programmes, with respect to subscale gains. Patients in programmes C and D show a clear inferiority, while patients in programme E show a slight superiority to patients in programme B, in that, of the three subscales which show significant improvement in either programme, two of the three show greater changes in programme E. In this instance, the differences between the means were taken as an indication of the magnitude of change (Cronbach and Furby, 1970). It is possible that the apparent superiority of programmes A and E could be due to the fact that these programmes might have had significantly lower CAS and significantly higher Alcadd subscale scores at the time of admission, which might have caused the greater magnitude of gain, in that lower CAS and higher Alcadd scores would have left more room for change. This possibility was ruled out, since a one-way analysis of variance for differences in mean admission CAS and Alcadd subscale scores, shown in table 17.4, did not reveal any significant differences in PSY, P or R subscale means between the treatment programmes.

#### Section 17.6. Changes in CAS and Alcadd Subscale Scores between the Discharge and Follow-Up Interviews for All Treatment Programmes

Mean CAS and Alcadd subscale scores, along with corresponding values of  $t$  from a t-test for correlated means

are presented in table 17.5.

TABLE 17.5.--Mean CAS and Alcadd Subscale Scores for Discharge and Follow-Up with Corresponding Values of  $t$  from a  $t$ -Test between Correlated Means

N=60

Subscale	Discharge Mean	Follow-Up Mean	$t$
E	8.90	8.28	-1.37
IN	12.48	11.93	-1.18
PSY	14.05	14.63	0.74
P	2.65	2.05	-1.92*
R	5.28	4.62	-1.94*

\* $p < .05$  one-tailed

The data in table 17.5 suggest a deterioration in Clarke Adjustment Scale subscores following the discharge interview. The deteriorations, however, were not significant. One possible explanation for the deterioration is that patients' perceptions are inflated at the time of the discharge interview. Inflating their scores at this time might be a way of saying to the staff and to themselves that everything will be fine after discharge (Meltzoff and Kornreich, 1970). The Alcadd subscale scores show a significant decrease between discharge and follow-up. The results might suggest that the major portion of the change in perceived social functioning, between the admission and follow-up interviews, can be attributed to changes between admission and discharge.

Section 17.2. Changes in CAS and Alcadd Subscale Scores between the Discharge and Follow-Up Interviews for Each Treatment Programme

This section will test the following hypothesis:

Hypothesis 6C: Taking each treatment programme separately, patients will demonstrate a significant improvement in social functioning, as measured by the CAS subscales, and a significant decrease in orientation toward alcohol, as measured by the P and R Alcadd subscales, between the discharge and follow-up interviews.

Mean CAS and Alcadd subscale scores, along with values of  $t$  from t-tests for correlated means, are presented in table 17.6.

It would appear from table 17.6 that patients show relatively little change in CAS and Alcadd subscale scores between discharge and follow-up. Hypothesis 6C is confirmed for programme A with respect to the PSY subscale of the Clarke Adjustment Scale (CAS) and for the P subscale of the Alcadd. The hypothesis is also confirmed for patients in programme E, who show a significant decrease in R subscale scores between the discharge and follow-up interviews. It would appear that patients in programme A do best with respect to maintaining significant increases in perceived psychological functioning and decreases in perceived orientation toward alcohol during this period. The next most effective treatment programme would appear to be programme E, in that its patients showed continued reduction in their rationalisation toward the use of alcohol. As before, the superiority of programmes A and E might be due to the fact that patients in these two programmes, who completed the follow-up interview, had higher Alcadd subscale scores and lower CAS subscale scores at the time of discharge than did patients in the other treatment programmes. However, a one-way analysis of variance comparing the differences in mean

TABLE 17.6.--Mean CAS and Alcadd Subscale Scores for Discharge and Follow-Up with Corresponding Values of a t-Test for Correlated Means

Sub-scale	Treatment Programme											
	A			B			C+D			E		
	DIS	FU	t	DIS	FU	t	DIS	FU	t	DIS	FU	t
	N=24			N=17			N=5			N=14		
E	9.25	9.83	1.05	6.70	6.41	-0.33	9.40	7.20	-1.20	10.78	8.28	-2.65*
IN	12.58	12.62	0.06	12.64	10.82	-1.98*	11.60	12.40	0.57	12.43	11.93	-0.56
PSY	13.17	16.17	2.56*	13.41	12.53	-0.63	18.40	12.20	-1.52	14.71	15.50	0.94
P	3.25	1.79	-4.16**	2.70	2.64	-0.10	1.20	3.40	2.27	2.07	1.28	-1.02
R	4.71	3.83	-1.57	6.12	6.06	-0.09	5.40	6.00	0.74	5.21	3.71	-1.99*

\*p<.05 one-tailed

\*\*p<.01 one-tailed

discharge Alcadd subscale scores (table 17.4) did not indicate a significant difference in PSY, P or R subscale scores between the treatment programmes. Given the absence of a significant difference in mean subscale scores between the treatment programmes, it would appear, on the whole, that the level of PSY or Alcadd subscale scores at the time of the discharge interview did not make a substantial contribution toward accounting for the superiority of programmes A and E.

#### Section 17.8. The Effect of Patient Characteristics on Treatment Effectiveness

Only those patient characteristics which have been shown to be differentially distributed between treatment programmes (see table 13.3) will be considered. If these patient characteristics prove to be associated with improvement in the PSY subscale and decrease in the P and R subscales, it is possible that the differential distribution of the patient characteristics might account for the relative treatment effectiveness. In other words, if being married is associated with favourable treatment outcome, and if programmes A and E have a higher proportion of married patients, it is possible that the superiority of programmes A and E might be due to this factor, rather than to aspects of the treatment process.

For improvement in a patient's perceived psychological functioning between the admission and follow-up interviews, only marital status is associated with whether or not a patient shows improvement in perceived psychological

functioning. Of those patients who indicated that they were currently married, 10.8 percent showed no improvement in their psychological functioning, as opposed to 89.2 percent who showed an improvement. For those patients who were not married, 40.9 percent showed no improvement in their psychological functioning, while 59.1 percent showed an improvement. The value of chi-square was 5.63, with 1 degree of freedom. Since there were twelve characteristics which discriminated between the treatment programmes, one significant association in twelve possibilities is not much above the chance expectation. There were no significant associations between patient characteristics and whether or not patients showed decreases in Alcadd subscale scores between the admission and follow-up interviews. One, therefore, can conclude that the superiority of programmes A and E with respect to changes in the above CAS and Alcadd subscales is not due to patient characteristics.

With respect to changes in psychological functioning between the discharge and follow-up interviews, for those patients who made a recent attempt at abstinence prior to their current treatment, 37.2 percent of such patients showed no improvement in their perceived psychological functioning, while 62.8 percent showed an improvement. Of those who did not make an attempt at recent abstinence, 75 percent showed no improvement, as opposed to 25 percent that did. The value of chi-square was 5.25, with 1 degree of freedom. For those whose length of abstinence prior to treatment was less than two weeks, 61.8 percent



showed no improvement in perceived psychological functioning between the discharge and follow-up interviews, while 32.8 percent showed an improvement. In the case of patients reporting a length of abstinence greater than two weeks, 28 percent showed no improvement, as opposed to 72 percent who showed an improvement in their perceived psychological functioning, during the above time period. The value of chi-square was 5.30, with 1 degree of freedom. Given that programmes A and E had a higher proportion of patients showing a recent attempt at abstinence prior to treatment and a greater proportion who had a longer attempt at the recent abstinence, one cannot rule out the possibility that part of the superiority of programmes A and E, with respect to improvement in perceived psychological functioning, was due to the higher proportion of patients having the above characteristics, rather than to elements within the treatment process.

There were no significant associations between patient characteristics and whether or not patients showed reductions in their R and P subscale scores between discharge and follow-up. It is necessary to point out that this type of analysis is rather crude. It has reduced patient characteristics to two categories. It also has failed to take into consideration the magnitude of the improvement. Unfortunately, a more refined analysis was not possible. These limitations notwithstanding, the overall evidence seems to allow us to rule out the influence of patient characteristics as competing variables, except in the case of improvement in perceived psychological

functioning between discharge and follow-up. Even here, the contribution of patient characteristics does not appear to be marked. While there are two significant associations in twelve possibilities, it is possible that the two patient characteristics might be interrelated. In other words, if a patient did not make an attempt at abstinence within the ten weeks prior to the first interview, he would have automatically been included in the group of patients showing less than two weeks of abstinence prior to treatment. The possibility of interrelationship might diminish the effect that these characteristics would have on patient improvement in perceived psychological functioning, since one might actually be measuring the same relationship on two occasions. There remains, then, the possibility that the superiority of the specialised treatment programmes (A and E) might be due to elements within the treatment process, rather than to patient characteristics. This will be discussed in subsequent chapters.

#### Section 17.9. Changes in Drinking Status Index Scores

Patients were divided into two groups: those who showed an improvement in their drinking status index scores between admission and follow-up and those who did not. The number of patients showing an improvement or not in drinking status index score served as the row variable, while the treatment programme served as the column variable. A chi-square analysis indicated no significant differences between the treatment programmes, as

to whether or not patients showed an improvement in drinking status index scores. Since the analysis did not indicate significant differences, the figures will not be reported. Up to this point (except for descriptive statistics and principal component analyses) figures have only been reported where there has been at least some indication of significance. This procedure was instituted so that the number of tables would not become unreasonable.

#### Section 17.10. Summary

Patients in programmes A and B showed a significant increase in IN subscale scores between the admission and discharge interviews. Patients in all programmes showed a significant increase in PSY subscale scores and a significant decrease in P subscale scores during the same period. Patients in programmes A, B and C + D also showed a significant decrease in R subscale scores. Hypothesis 6A was confirmed in the above instances.

It was felt that changes in patient social functioning and orientation toward alcohol between the admission and discharge interviews, based on patient perceptions, might be subject to invalidity. It was decided, therefore, not to consider any further changes in these areas that occurred between the admission and discharge interviews.

For the total patient population having a follow-up interview, it appeared that patient-perceived psychological functioning and orientation toward alcohol were more amenable to change between the admission and follow-up

interviews than were changes in patient-perceived employment and interpersonal functioning. Examining programmes separately, it was noted that patients in programmes A, B and E showed significant improvement in PSY subscale scores and significant decrease in P and R subscale scores. Hypothesis 6B was confirmed in the above instances.

Considering CAS and Alcadd subscale scores for the total patient population, obtained at the discharge and follow-up interviews, there was a significant decrease in Alcadd subscale scores between the two interviews. The fact that CAS subscale scores showed little change might suggest that the major portion of change in perceived social functioning between admission and follow-up interviews can be attributed to changes between the admission and discharge interviews. Patients in programme A showed considerable superiority in that they were the only ones to demonstrate continued significant improvement in PSY subscale scores between discharge and follow-up. Programme A had patients who showed continued significant deterioration in P subscale scores, while patients in programme E showed continued significant deterioration in R subscale scores between the discharge and follow-up interviews. Hypothesis 6C was confirmed in the above instances.

The results indicated that patient characteristics which were differentially distributed between the treatment programmes did not generally tend to be associated with whether or not patients showed improvement in their perceived psychological functioning and a decrease in

their orientation toward alcohol, between the admission and follow-up or the discharge and follow-up interviews. Therefore, one could not attribute the superiority of programmes A and E to differences in patient characteristics. Similarly, for those patients who completed a follow-up interview, there was no significant difference between the treatment programmes in mean PSY and Alcadd subscale scores obtained at admission or discharge. It was not possible, therefore, to attribute the superiority of programmes A and E to higher PSY and lower Alcadd subscale scores obtained at admission and follow-up.

Lastly, it was noted that there was no significant difference between the treatment programmes in the number of patients who showed an improvement in their drinking status index scores, between admission and follow-up.

## CHAPTER 18

### Variables Associated with Changes in CAS Subscale Scores, Alcadd Subscale Scores and Drinking Status Index Scores

#### Section 18.1. Introduction

As has been mentioned already, treatment effectiveness was assessed in the present study by changes in outcome criteria. The last chapter has already examined the changes in outcome criteria, both for the total patient population who completed the follow-up interview and for the patients in each treatment programme. The present chapter will examine some of the correlates of change in outcome criteria. As before, change will be considered for two periods of time. The first time period covers the admission and follow-up interviews, while the second time period covers the discharge and follow-up interviews.

The analysis will focus on the association between change in outcome criteria and the behaviour during the follow-up period. This will have the effect of establishing the face validity of the change criteria. Once this has been done, the analysis will examine the relationship between patients' perception of their treatment milieu, as measured by WAS(COPES) subscale scores, and changes they make on outcome criteria. This follows from the general assumption that elements within the treatment



process help to determine treatment outcome, one of these elements being the patient's perception of the treatment milieu (Moos, 1974).

If we are interested in examining the relationship between selected variables and the degree of change a patient undergoes, it is necessary to remove from the relationship the effects of the initial score. To be more specific, a patient may show a substantial change because he started out with a low initial score, thus giving considerable room for progress. If this were the case, one might argue that any relationship between the independent variable and the magnitude of change is merely a function of the initial score. Therefore, one must eliminate the effects of the initial score. Lacey (1956) and Tucker et al. (1966) suggest methods for developing a "base-free" measure of change. Cronbach and Furby (1970) argue that such methods, while eliminating the effects of the first score, also eliminate elements of change that are otherwise important.

In the absence of an adequate base-free measure of change, another approach would have been to compute the relationship between the independent variables and the change scores, while partialing out the effects of the initial scores. Since Kendall's tau was used as the original measure of association, this would have suggested the use of Kendall's partial tau (Siegel, 1956) to determine the relationships with the effects of the first score removed. Blalock (1972) notes, however, that we are as yet unclear about the behaviour of Kendall's partial tau,



especially since the sampling distribution is unknown. Goodman (1959) has suggested an alternative measure of partial association using ordinal measures, where the sampling distribution is known. Unfortunately, the method is not applicable to the present study because of the large number of tied ranks in the data. Given no clear alternative, we are forced to accept Blalock's suggestion of treating the ordinal data as continuous and computing Pearson product-moment partial correlation coefficients. It would seem that such a procedure is allowable, in that there is no clear argument on whether or not we can treat ordinal data as interval (Nie et al., 1970).

As before, figures will only be reported where there is at least some significant finding, as this reduces the number of tables to a reasonable number.

#### Section 18.2. The Relationship between Behavioural Variables Obtained at Follow-Up and Changes in CAS and Alcadd Subscale Scores from the Admission to the Follow-Up Interviews

Table 18.1 presents the partial correlations between changes in CAS subscales E, IN and PSY, and Alcadd P and R subscale scores, controlling for the effects of the initial scores. For the purposes of tabular presentation, the behavioural variables are abbreviated as ABS, FDR, BL, NB and NS. For the meaning of the abbreviations, consult chapter 16.

The general trend shown in table 18.1 is that patients with more positive improvement in perceived social functioning also show a greater abstinence length, a lower

TABLE 18.1.--Pearson Product-Moment Partial Correlation Coefficients for the Relationship between Both Changes in CAS and Alcadd Subscale Scores from Admission to Follow-Up Interviews and Measures of Behaviour during the Follow-Up Period, Controlling for the Effects of Initial CAS and Alcadd Subscale Scores  
(decimal points omitted)

N=58

	ABS	FDR	BL	NB	NS
E	19	-31**	-39**	-23*	-36**
IN	39**	-25*	-06	-18	08
PSY	45**	-46**	-19	-38**	01
P	-45**	46**	00	49**	-23*
R	-55**	53**	17	67**	-14

\*p<.05

\*\*p<.01

drinking frequency and a lower number of bouts during the follow-up period. Similarly, patients with a lower orientation toward alcohol also show a longer period of abstinence, a lower drinking frequency and fewer bouts during the follow-up period. The fact that increases in social functioning are associated with a lower level of drinking behaviour during the follow-up period is consistent with the findings of Goldfreid (1969), Gillis and Keet (1969) and Wierig and Robertson (1970)<sup>1</sup>, who note the relationship between positive social functioning and treatment outcome. The fact that low employment functioning as perceived by the patient is highly related to a greater number of sessions (AA or clinic) during the follow-up period is consistent with the results of Finlay (1972), who found that patients with lower employment functioning (either having lost their jobs, or in danger of doing so) were more accepting of treatment, probably because they took the problem more seriously.

<sup>1</sup>This study is not concerned with alcoholism treatment outcome, but with outcome for a heterogeneous patient population.

It can be seen from table 18.1 that change in the Rationalization subscale of the Alcadd is a better predictor of follow-up behaviour than change in the Preference subscale. One possible explanation of this might be that patients report a reduction in preference because they think that this is approved of by the author or staff. Another possibility is that reduction in the degree of rationalisation regarding one's alcoholism is an indication that one is ready to relinquish old behaviour in the hope of acquiring a new set of responses. In general, one can conclude that behaviour during the follow-up period is highly related to increases in social functioning and decreases in orientation toward alcohol between the admission and follow-up interviews. This would tend to indicate the validity of using change in social functioning and orientation toward alcohol from admission to follow-up as a valid indicator of treatment effectiveness.

Section 18.3. The Relationship between  
Variables Obtained at Follow-Up and  
Changes in Both CAS and Alcadd Subscale  
Scores from the Discharge to the  
Follow-Up Interviews

The same analysis as presented in section 18.2 will be presented in this section, except that we are now concerned with changes between the discharge and follow-up interviews. The partial correlation coefficients for this analysis are presented in table 18.2, controlling for the effects of the level of CAS and Alcadd subscale scores, obtained at the discharge interview.

TABLE 18.2.--Pearson Product-Moment Partial Correlation Coefficients for the Relationship between Both Changes in CAS and Alcadd Subscale Scores from Discharge to Follow-Up Interviews and Measures of Behaviour during the Follow-Up Period, Controlling for the Effects of CAS and Alcadd Subscale Scores Obtained at Discharge  
(decimal points omitted)

N=58

	ABS	FDR	BL	NB	NS
E	18	-30*	-40**	-23*	-39**
IN	35*	-23*	-01	-20	14
PSY	50**	-45**	-21*	-37**	00
P	-46**	48**	01	53**	-21
R	-54**	52**	10	66**	-14

\*p<.05

\*\*p<.01

It should be noted that the discrepancy between two partial correlation coefficients of -.21 (one being significant and the other not) is due to rounding, in that anything below a probability level of .056 is considered significant. The general trend of the results in table 18.2 is identical to that of results in table 18.1. The same conclusions would, therefore, hold and it appears that changes in CAS and Alcadd subscale scores between discharge and follow-up interviews are also a valid indicator of treatment effectiveness.

Section 18.4. The Relationship between Patient WAS(COPES) Subscale Scores and Changes in Both CAS and Alcadd Subscale Scores from Admission to Follow-Up

In looking at the relationship between patient WAS (COPES) subscale scores and changes in outcome variables, we are proceeding from the assumption that elements of the treatment process affect treatment outcome. This supposition has been documented in chapters 5 and 6, with respect

to several aspects of the treatment process. In the context of the present study, patient perception of the treatment milieu is considered to be one element of the treatment process. This section will test the following hypotheses:

Hypothesis 7A: There is a significant positive relationship between patients' perception of the treatment milieu, as measured by WAS(COPES) subscale scores, and changes in CAS subscale scores, between the admission and follow-up interviews.

Hypothesis 7B: There is a significant negative relationship between patients' perception of the treatment milieu, as measured by WAS(COPES) subscale scores, and changes in P and R Alcadd subscale scores, between the admission and follow-up interviews.

Pearson product-moment partial correlation coefficients for the relationship between both changes in CAS and Alcadd subscale scores and patient WAS(COPES) subscale scores, after controlling for initial CAS and Alcadd subscale scores, are presented in table 18.3. It can be seen from this table that only two of fifty associations reach significance. This is less than that which would be expected by chance. There are no grounds, therefore, for accepting Hypotheses 7A and 7B.<sup>1</sup> One might conclude that changes in social functioning and orientation toward alcohol, between the admission and follow-up interviews, are independent of patients' milieu perception.

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<sup>1</sup>Rather than correlating WAS(COPES) subscale scores with difference scores, using partial correlation coefficients, Lord (1967) has suggested an alternative analysis. Patient WAS(COPES) subscale scores were correlated with the CAS and Alcadd subscale scores, obtained at the follow-up interview, controlling for the effects of initial CAS and Alcadd subscale scores. The results, using Lord's method, did not show any increase in the number of significant partial correlations. Hypotheses 7A and 7B remained unconfirmed.

TABLE 18.3.--- Pearson Product-Moment Partial Correlation Coefficients for the Relationship between Changes in CAS and Alcadd Subscale Scores from Admission to Follow-Up and Patient WAS(COPES) Subscale Scores, Controlling for the Effects of Initial CAS and Alcadd Subscale Scores  
(decimal points omitted)

N=59

	I	S	SP	AUT	PO	PPO	AA	OO	PC	SC
E	09	21	05	-01	18	33**	14	21	14	-14
IN	12	-10	05	-10	02	20	14	-07	19	17
PSY	09	12	02	17	10	15	-05	00	16	00
P	09	00	-06	-06	13	-11	-05	-04	-07	01
R	02	-11	-02	10	11	-23*	-03	08	-04	01

\*p<.05

\*\*p<.01



Section 18.5. The Relationship between Patient WAS(COPES) Subscale Scores and Changes in Both CAS and Alcadd Subscale Scores from the Discharge to Follow-Up Interviews

This section will repeat the analysis done in the previous section, except that differences will now be from discharge to follow-up. Accordingly, the partial correlation analysis will control for the effect of CAS and Alcadd subscale scores obtained at the follow-up interview. These partial correlation coefficients appear in table 18.4. This section will test the following hypotheses:

Hypothesis 7C: There is a significant positive relationship between patients' perception of the treatment milieu, as measured by WAS(COPES) subscale scores, and changes in CAS subscale scores, between the discharge and follow-up interviews.

Hypothesis 7D: There is a significant negative relationship between patients' perception of the treatment milieu, as measured by WAS(COPES) subscale scores, and changes in P and R Alcadd subscale scores, between the discharge and follow-up interviews.

An examination of table 18.4 indicates only three of fifty correlations which reach significance. This number of significant relationships could have arisen by chance. There are no grounds, therefore, for accepting the above two hypotheses. Hypotheses 7C and 7D are rejected<sup>1</sup> and one may conclude that changes in patient social functioning and orientation toward alcohol between the discharge and follow-up interviews are independent of patient milieu perception.

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<sup>1</sup>Similar findings were obtained using Lord's (1967) method of partial correlation analysis, already noted.



TABLE 18.4.--Pearson Product-Moment Partial Correlation Coefficients for the Relationship between Changes in CAS and Alcadd Subscale Scores from Discharge to Follow-Up with Patient WAS(COPES) Subscale Scores, Controlling for the Effects of CAS and Alcadd Subscale Scores Obtained at the Follow-Up Interview  
(decimal points omitted)

N=59

	I	S	SP	AUT	PO	PPO	AA	OO	PC	SC
E	04	16	02	-06	15	29*	19	15	04	-14
IN	17	-06	00	-08	02	20	25*	-05	10	17
PSY	05	18	09	17	08	12	-05	-07	23*	03
P	10	03	-05	-04	13	-11	-10	-04	-06	03
R	08	-04	-05	06	12	-19	-09	05	-10	00

\*p<.05

Section 18.6. The Relationship between  
Patient WAS(COPES) Subscale Scores and  
Changes in Patient Drinking Status  
Index Scores from the Admission to  
Follow-Up Interviews

Just as it was possible to consider the relationship between patients' perception of the treatment milieu and the changes they show regarding CAS and Alcadd subscale scores, it is also possible to look at the relationship between WAS(COPES) subscale scores and whether or not a patient has shown improvement in his drinking status index score. It is not possible, however, to perform the analysis in the same way. This impossibility results from the fact that the drinking status index is not an interval scale. It would, therefore, be meaningless to compute a difference score for this measure.

In order to undertake an analysis which would test for association, it was necessary to divide the subjects into three groups. Subjects who showed a deterioration in their drinking status index scores were placed in the first group. Subjects who showed no change were placed in the second group, and subjects who showed an improvement in their drinking status index scores were placed in group three. Within each group, patients were divided on the median WAS(COPES) score for all patients completing the second interview. This yielded a three-by-two contingency table for each subscale. It was then possible to perform a chi-square analysis to test for the association between WAS(COPES) subscale responses and improvements in their drinking status index scores. This section will test the following hypothesis:

Hypothesis 7E: There is an association between patients' perception of the treatment milieu, as measured by WAS (COPEs) subscale scores, and the extent to which they show an increase in drinking status index scores, between the admission and follow-up interviews.

The chi-square analysis revealed no WAS(COPES) subscale which was associated with improvement in drinking status index scores. Hypothesis 7E is therefore rejected. Patient change in patient drinking status index scores appears to be independent of perceived milieu.

#### Section 18.7. Summary

This chapter examined correlates of change in outcome variables with respect to two main areas. These are patients' perception of the treatment milieu and behaviour during the follow-up period. Using partial correlation analysis, the results indicated that behaviour during the follow-up period was related to changes in social functioning and orientation toward alcohol, but that these changes appeared to be independent of patients' perception of treatment milieu. Improvement in patients' drinking status index scores was also independent of perceived treatment milieu.

## CHAPTER 19

### The Relationship between Staff Perception of Treatment Milieu, Staff-Patient Relationships and Changes in Outcome Criteria

#### Section 19.1. Introduction

The previous chapter examined the relationship between one aspect of the treatment process--namely, the patient's perception of the treatment milieu--and changes in outcome criteria. Two other important aspects of the therapeutic process are how staff perceive their relationship to patients, as measured by the staff's BLRI subscale scores, and staff perception of the treatment milieu, as measured by their WAS(COPES) subscale scores. Chapters 5 and 6 noted that these two aspects of the treatment process appeared to be linked to treatment outcome. This chapter will examine the relationship between staff's perception of their relationship to patients, their perception of the treatment milieu, and changes in outcome criteria. As before, change will be assessed in two ways: change between the admission and follow-up interviews and change between the discharge and follow-up interviews.

The problem then becomes one of how best to measure the association between patient and staff variables. Ideally, the study design should incorporate a match of specific patients with members of staff. Rank-order

correlations could then be computed. Such a process of matching posed administrative difficulties and produced agency objections. The idea was therefore abandoned. The second alternative would have been to take the average staff response and correlate this (using rank-order correlations) with the average patient response. This, however, was not practical since there were only four patient programmes (due to combining of data) in the analysis. The final possibility was to use chi-square analysis. In this analysis, patients were placed into one of two groups for each outcome criterion; e.g., those patients who showed positive changes in each outcome criterion, as compared with those who showed no change or deterioration. This formed the dependent variable. Programmes C and D were combined, as was the case for the patients. Mean staff responses were computed for all WAS(COPES) and BLRI subscales which showed an ability to discriminate between the original five treatment programmes. Programmes with the two highest mean scores were placed in one group and programmes with the two lowest, in the other group. This yielded a two-by-two contingency table, for each WAS(COPES) and BLRI subscale that showed an ability to discriminate between all five treatment programmes, from which a value of chi-square was computed. This type of analysis has two main drawbacks. Firstly, it is insensitive to order. In other words, if programmes A and B were ranked as the two highest on one staff variable and the lowest on another, the values of chi-square for the association between either of these staff variables and the same patient variable

would be identical. Secondly, this type of analysis did not seem so meaningful when there were small differences between the means in programmes A, B, C + D and E. In order to partially combat the second difficulty, only those staff WAS(COPES) and BLRI subscales which showed significant ability to discriminate between the five treatment programmes, used in the present study, were included in the analysis. Clearly the analysis, here, is less than perfect, but, as Siegel (1956) noted, chi-square analysis is often used when there is no other alternative.

Section 19.2. The Relationship between  
Staff WAS(COPES) Subscale Scores and  
Changes in CAS and Alcadd Subscale  
Scores between the Admission and  
Follow-Up Interviews

This section will test the following hypothesis:

Hypothesis 8A: There is an association between a programme's score on staff WAS(COPES) subscales and the extent to which patients increase in CAS subscale scores and decline in P and R Alcadd subscale scores, between the admission and follow-up interviews.

As indicated earlier, only significant associations will be reported. The results from the chi-square analysis indicate no significant associations between treatment milieu as perceived by the staff and whether or not patients show an increase in CAS subscale scores and a decrease in Alcadd subscale scores. Hypothesis 8A is therefore rejected. Patient improvement in social functioning and decrease in orientation toward alcohol between the admission and follow-up interviews can be said to be independent of the programme's score on staff WAS (COPES) subscales.

Section 19.3. The Relationship between  
Staff WAS(COPES) Subscale Scores and  
Changes in CAS and Alcadd Subscale  
Scores between the Discharge and  
Follow-Up Interviews

This section will test the following hypothesis:

Hypothesis 8B: There is an association between a programme's score on staff WAS(COPES) subscales and the extent to which patients increase in CAS subscale scores and decrease in P and R Alcadd subscale scores, between the discharge and follow-up interviews.

Looking at the staff WAS(COPES) subscales, which discriminate between the five original treatment regimes (see chapter 10), there are only two significant associations. The programme's rank on the Involvement and the Anger and Aggression subscales of the WAS(COPES) is significantly associated with whether or not patients show improvement in their perceived psychological functioning between the discharge and follow-up interviews. For programmes A and E, where staff perceive a high degree of involvement, 64.9 percent of the patients completing the follow-up interview (N=60) showed an improvement in their perceived psychological functioning between the discharge and follow-up interviews, as opposed to 35.1 percent who showed no change or deterioration. For the other programmes, where staff perceived a low degree of involvement, only 31.8 percent of the patients showed an improvement, while the remainder did not. The same figures apply for the association between a programme's score on the mean staff Anger and Aggression subscale score and whether or not patients showed improvement in perceived psychological functioning during the same period. The value of chi-square in both instances was 4.79 with 1 degree of



freedom. There are no significant associations between a programme's rank on the mean staff WAS(COPES) subscale scores and whether or not patients showed increases in E and IN Clarke Adjustment Scale scores or decreases in Alcadd subscale scores between the discharge and follow-up interviews. Two significant associations in thirty possibilities, derived from an analysis of six WAS(COPES) subscales by five CAS and Alcadd subscales, is not much above the chance expectation of 1.5. There are not sufficient grounds, therefore, for accepting Hypothesis 8B. Hypothesis 8B is therefore rejected.

There are, however, two additional instances where the programme's score on the WAS(COPES) approaches significance (at less than or equal to the .10 level of significance) in its association with whether or not patients showed an increase in the Employment Functioning subscale of the CAS. The two subscales were the AUT and PO subscales. Slightly more than 84 percent of the patients in programmes where the staff perceived a high degree of patient autonomy showed either no change or a deterioration in their perceived employment functioning, as compared with 15.8 percent of the patients who showed improvement. In programmes where staff perceived a low degree of patient autonomy, 56.1 percent of the patients showed no change or deterioration, while 43.9 percent of the patients showed an improvement. The same figures hold for the association between the Practical Orientation subscale of the WAS (COPES) and the Employment Functioning subscale of the CAS. In both instances, the value of chi-square was 3.36,

with 1 degree of freedom. Even if the acceptable level of significance were to be increased to .10, so as to include the above two associations, four associations in thirty possibilities is only slightly above what one would expect by chance, given a .10 level of significance. Hypothesis 8B is, therefore, still not accepted.

Section 19.4. The Relationship between Staff WAS(COPES) Subscale Scores and Change in Drinking Status Index Scores

This section will test the following hypothesis:

Hypothesis 8C: There is an association between a programme's score on staff WAS(COPES) subscales and the extent to which patients increase in drinking status index scores, between the admission and follow-up interviews.

The same type of analysis was attempted in order to test this hypothesis, except that patients were divided into two groups on the basis of whether or not they showed an improvement in their drinking status index scores. The analysis revealed no significant association between staff perception of the treatment milieu and whether or not patients showed improvement in their drinking status index scores. Hypothesis 8C is therefore rejected. One can then say that whether or not patients show improvement in drinking status index scores is independent of a programme's score on staff WAS(COPES) subscales.

Section 19.5. The Relationship between the Willingness to be Known (W) Subscale of the BLRI and Changes in CAS and Alcadd Subscale Scores between the Admission and Follow-Up Interviews

This section will tests the following hypothesis:

Hypothesis 8D: There is an association between a programme's score on the BLRI subscales and the extent to

which patients increase in CAS subscale scores and decrease in P and R Alcadd subscale scores, between the admission and follow-up interviews.

As mentioned earlier, only those subscales which discriminate between the treatment programmes will be included in the analysis. All BLRI subscales, except the Willingness to be Known (W) subscale, will be eliminated. The chi-square analysis revealed no significant association between a programme's score on the W subscale of the BLRI and whether or not patients showed increases in their CAS subscale scores and decreases in their Alcadd subscale scores, between the admission and follow-up interviews. Hypothesis 8D is therefore rejected. Whether or not patients show the hypothesized changes in CAS and Alcadd subscale scores between admission and discharge interviews appears to be independent of the programme's score on the W subscale of the BLRI.

Section 19.6. The Relationship between the Willingness to be Known Subscale and Changes in CAS and Alcadd Subscale Scores between the Discharge and Follow-Up Interviews

This section will test the following hypothesis:

Hypothesis 8E: There is an association between a programme's score on the BLRI subscales and the extent to which patients increase in CAS subscale scores and decrease in P and R Alcadd subscale scores, between the discharge and follow-up interviews.

As indicated in the last section, only the W subscale will be considered in the analysis, as it is the only BLRI subscale that discriminates between the treatment programmes. The results of the chi-square analysis show no significant association between whether or not patients

showed an appropriate change in the above outcome variables and the programme's score on the W subscale of the BLRI. Hypothesis 8E is therefore not accepted. Whether or not patients show an increase in social functioning or a decrease in orientation toward alcohol, from discharge to follow-up, is independent of a programme's score on the W subscale of the BLRI.

Section 19.7. The Relationship between the Willingness to be Known Subscale of the BLRI and Changes in Patient Drinking Status Index Scores

This section will test the following hypothesis:

Hypothesis 8F: There is an association between a programme's score on the BLRI subscales and the extent to which patients increase on drinking status index scores, between the admission and follow-up interviews.

Again, only the W subscale of the BLRI will be considered in the analysis. The chi-square analysis revealed no significant association between the programme's score on the W subscale and whether or not patients showed an improvement in their drinking status index scores. Hypothesis 8F is therefore rejected. One may conclude that increase in patient drinking status index scores is independent of a programme's score on the W subscale of the BLRI.

It is possible that some combination of the WAS (COPES) and BLRI subscales, rather than each separate subscale, might be making a contribution toward patient improvement. This possibility will be considered in chapter 22.

### Section 19.8. Summary

The results presented in this chapter tended to indicate that changes in outcome criteria are independent of a programme's staff WAS(COPES) subscale scores and a programme's score on the W subscale of the BLRI. Hypotheses 8A through 8F were therefore rejected. Failure to confirm the hypotheses might be due to the low power of the chi-square analysis, as well as to the possibility that aspects of milieu and staff-patient relationships might be working in unison, rather than independently, toward affecting patient improvement. These two possibilities will be considered in the conclusions section of the thesis.

PART FIVE

CONCLUSIONS

## CHAPTER 20

### The Use of the WAS(COPES) as a Paper-and-Pencil Technique for Assessing Treatment Milieux

#### Section 20.1. Introduction

One assumption of the present study has been that it is possible to measure treatment milieux using paper-and-pencil techniques. One way to do this, according to Moos (1974), is to administer scales or inventories designed to assess subjects' perceptions of the treatment environment. Moos (op. cit.) has used this approach to measure aspects of the treatment milieu, such as Involvement, Support, Spontaneity, etc., which he considered, on prima facie grounds, to be important elements underlying the treatment process. The extent to which a programme actually has these qualities is hard to determine, except by extended observation. One way of indirectly doing this is to measure the degree to which patients and staff perceive the treatment environment as stressing the above aspects of milieu. The assumption behind this is that subjects' perceptions constitute a reasonably good approximation to the actual treatment milieu, e.g., the degree to which treatment does actually stress Involvement, Support, Spontaneity, etc. The fact that subjects' perceptions form a good approximation to the actual milieu has been demonstrated by Moos (op. cit.).



James and Jones (1974), as well as Moos (1974), underscore the importance of studying subjects' milieu perceptions. According to these authors, the subjective impressions of the environment act as a link between the actual environment and the behaviour or attitudes of individuals. This would suggest that the actual environment is important, in determining treatment outcome, only as it acts through, or is mediated by, subjective perceptions of the environment. For these reasons, it made sense, in terms of the present study, to focus on the staff and patients' perception of the treatment milieu, rather than on attempting to ascertain the actual milieu.

#### Section 20.2. Staff Responses to the WAS(COPES)

Chapter 6 examined some of the research attempting to measure staff and patient perceptions of the treatment atmosphere, using the WAS or Ward Atmosphere Scale. The research seemed to suggest that the WAS and other paper-and-pencil techniques were capable of adequately measuring the perceived treatment milieu within psychotherapeutic settings. Because the WAS and COPES were not developed specifically for alcoholism treatment programmes, it seemed reasonable that the first phrase of the data analysis would have examined whether or not it was possible to measure the milieu perceptions of staff and alcoholic patients. We found that the WAS(COPES) was able to discriminate between the staff milieu perceptions of the five treatment programmes, using a median test. The subscales that showed an ability to discriminate between the staff

perceptions of the treatment programmes were Involvement, Autonomy, Practical Orientation, Personal Problem Orientation, Anger and Aggression, and Staff Control. Moreover, when one examined the mean score for the above WAS(COPES) subscales within each treatment programme, these tended to agree with what was known about the treatment programme, based on unstructured periods of observation. This can be taken as crude evidence for the face validity of the staff perceptions.

We also found that staff perceptions of the treatment milieu were independent of the sex of the respondent and the length of time the respondent worked with alcoholics. There was a significant, but not large, rank-order correlation between the length of time worked in the programme and the degree to which the staff saw treatment as stressing Autonomy and low Order and Organization. The negative correlation between length of time worked in the treatment programme and perceived Order and Organization might be accounted for by the fact that more senior (in terms of time worked) treatment staff would have more experience in their treatment programme and, therefore, might be less inclined to see the need for stressing Order and Organization. A newer staff member, particularly if they are students, might have less treatment experience with the alcoholic and, therefore, might be more likely to overstress the need for patient control and thus score high on the Order and Organization subscale. Conversely, the more senior staff member, because he or she has more experience in patient management and the

effects of institutionalisation, might be more inclined to stress patient responsibility and score higher on the Autonomy subscale of the WAS(COPES).

Since there was no difference between the programmes in the mean length of time worked in the treatment programme, the association between this variable and the two WAS(COPES) subscales could not explain the ability of the subscales to discriminate between the treatment programmes. It was therefore concluded that the versions of the WAS (COPES) used in the present study appeared to be valid measures of staff perceptions regarding treatment milieu.

Moos (1973, 1974) hypothesized a three-dimensional structure underlying subjects' perceptions of the treatment milieu. Moos labelled the three dimensions as Relationship, Personal Development and Systems Maintenance-Systems Change. Principal component analysis of the staff responses to the WAS(COPES) yielded a dimensional structure similar to that of Moos's. This gives further support to the validity of the WAS and COPES used in the present study.

#### Section 20.3. Patient Responses to the WAS(COPES)

The present study found that the WAS(COPES) was able to discriminate between patient perceptions of the treatment programmes on five subscales, using a median test. These were Support, Personal Problem Orientation, Autonomy, Order and Organization, and Staff Control. The Involvement subscale was very close to being able to discriminate between the treatment programmes. We have also

seen from chapter 14 that patient milieu perceptions were associated with patient characteristics. This was consistent with Austin and Holland (1974), James and Jones (1974), Kish et al. (1971b), and Ellsworth and Maroney (1972). If we examine the strength of the correlations between patients' characteristics and their milieu perceptions, given in chapter 14, we see that the correlations, while significant, are not very large. From this, we can reject the possibility that one's perception of milieu is merely a function of one's characteristics, although characteristics can, to some extent, influence milieu perception.

If we re-examine the findings in chapter 15, we see that patients who perceived themselves as having a higher level of social functioning at the admission interview, as measured by the CAS subscales, generally perceived the treatment environment in more favourable terms. One explanation for the positive correlation between CAS and WAS(COPES) subscale scores is that patients with a higher level of social functioning might perceive themselves as deriving a greater degree of benefit from treatment. This, in turn, might lead to a more favourable perception of the treatment environment. Alternatively, the patients who exhibit a higher level of social functioning also could be responded to more favourably by the staff, which, in turn, might cause patients to perceive the treatment milieu in more favourable terms. The possibility that staff might respond more favourably to the patients with better social functioning has been indicated by several

of the senior staff members.

Differences among the treatment programmes with respect to patient responses on the Autonomy and Support WAS(COPES) subscales might have been due, in part, to the fact that patient characteristics associated with the WAS (COPES) subscales in question are differentially distributed between the treatment programmes. Unfortunately, we were not able to control for differences in the patient characteristics because of sample size. Controlling techniques involving chi-square analysis would have necessitated a sample size of several hundreded (Blalock, 1972). This was obviously impossible, because of economic and practical constraints discussed in chapter 9. Given our inability to control for confounding factors, the ability of patient responses on the Support and Autonomy subscales of the WAS(COPES) to discriminate between the treatment programmes should be regarded with caution.

We have already indicated that patients with better social functioning tended to perceive the treatment milieu as more favourable. It can be seen from chapter 15 that patients with lower Alcadd subscale scores also tended to perceive the treatment milieu in more favourable terms. In spite of the association between patients' milieu perceptions and their level of social functioning and orientation toward alcohol, one must rule out these latter two areas of patient functioning as confounding the discriminatory ability of patient WAS(COPES) responses, since a one-way analysis of variance revealed no significant differences in the mean CAS or Alcadd subscale scores

between the treatment programmes, whether at the time of the admission or discharge interviews, for the total patient population.

We have noted that patient responses to the WAS(COPES) were in general agreement with what was known about the treatment programmes. As mentioned before, certain personality dynamics of the alcoholic may account for the lack in variation between the treatment programmes with respect to mean patient responses on the Anger and Aggression and Order and Organization subscales. According to Glatt (1969), many patients see treatment as a period of "calm" in an otherwise stormy existence. It would seem likely, under these circumstances, that patients would perceive treatment as providing a considerable amount of structure (albeit temporary) in their lives. In chapter 2, we noted that a persistent personality characteristic of the alcoholic is dependency (Tokar et al., 1973). Given this high level of dependency, one might also expect the alcoholic to score low on the Anger and Aggression and high on the Order and Organization subscales of the WAS(COPES), indicating that the patient sees little need to assume responsibility for, and to take initiative in, his own treatment.

It was concluded that there was no discernible underlying structure to patients' milieu perceptions. This is contrary to Moos's (1974) hypothesis. One possible explanation for this is that alcoholic patients' perceptions regarding the treatment atmosphere are not as clearly structured as those of other patients. Another possibility is that patients might not have developed an



underlying structure governing their milieu perceptions, within the first ten days or three weeks of treatment. Lastly, it might be the presence of physical sequela, rather than not enough treatment exposure, that prevented the patients from developing an underlying perceptual structure. Perhaps patients were too confused during the early stages of treatment to develop a clear perceptual structure.

It has been noted in chapter 6 that several authors obtained interpretable principal component solutions using forms similar to the WAS(COPES) with other psychiatric patient populations. This would tend to support the contention that alcoholic patients do not have such well-defined perceptions, in terms of dimensional structure, as other psychiatric patients. One cannot state this definitively, however, since neither the length of patient stay nor the milieu assessment instruments reported in the other research were identical to the present study. In order to test this question, one would have had to administer the same instrument to both alcoholic and non-alcoholic patients, matching as nearly as possible for length of treatment and patient characteristics.

In order to explore the possibility that patients were not in the treatment programmes long enough to form an underlying perceptual structure, the responses of thirty-three patients, who were given the WAS(COPES) during the pilot phase of the research (see chapter 9) were subjected to a principal component factor analysis, which yielded three interpretable dimensions similar to



Moos's hypothetical structure. The sample included both male and female patients, many of whom were in treatment for more than four weeks. The varimax-rotated factor loadings from the pilot study data are presented in table 20.1.

TABLE 20.1.--Varimax-Rotated Factor Loadings for Principal Component Analysis of Patient WAS(COPES) Subscale Scores Obtained from the Pilot Patient Population

N=33

WAS(COPES) Subscale	Principal Component Loadings		
	Component 1	Component 2	Component 3
I	.73959	.32412	.13513
S	.31069	.65472	.43723
SP	.87027	-.15981	.04896
AUT	.63191	.35966	.00371
PO	.07132	.77917	-.08627
PPO	.44063	.67262	-.28744
AA	-.12368	.00323	-.79158
OO	-.16948	.43946	.63711
PC	.51939	.43117	.36814
SC	.11623	-.24510	.62713

Moos's Relationship dimension comprises the first three subscales. If we consider those subscales which load higher than .6<sup>1</sup> with their respective components, we see that the first component loads highest on the Involvement, Spontaneity and Autonomy subscales. There appears, then, to be a similarity between the first component and Moos's Relationship dimension. The second component loads highest on Practical Orientation and Personal Problem Orientation, which are two of the four subscales thought to comprise Moos's Personal Development dimension. The third component loads high on Order and Organization and Staff Control, which are two of the three subscales thought to comprise the Systems Maintenance-

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<sup>1</sup>This, again, is an arbitrary decision.

Systems Change dimension, according to Moos. The third component also loads highest on low Anger and Aggression; low Anger and Aggression could be seen as an element in the milieu necessary to maintain the treatment programme as it is. The third component would, therefore, seem to correspond to Moos's Systems Maintenance-Systems Change dimension. The components resulting from the above principal component analysis were labelled as Interaction, Treatment Oriented, and Control, respectively (Fischer, 1975). The fact that a principal component analysis of the patient data obtained during the pilot phase resulted in highly interpretable components, where the patient population was comprised of thirteen patients out of thirty-three who had been in treatment for more than four weeks, suggests that length of treatment might be a factor in the patients' ability to develop an underlying perceptual structure, regarding one's treatment milieu. This, however, should be accepted with some degree of caution, since the results from the pilot study are based on a different population (one that also included female patients) and a slightly different method of analysis (Pearson product-moment correlations were used in the principal component analysis of the pilot data, rather than rank-order correlations). These differences notwithstanding, the evidence suggests the possibility that the amount of treatment contact might be a factor in contributing to patients' ability to form an underlying dimensional structure regarding their treatment milieu. More work needs to be done, with male patients, before definite

conclusions can be reached.

In summary, it would seem that patients do give valid responses to the WAS(COPES), although their responses tend (possibly to a greater degree than those of staff) to be affected by demographic characteristics or personality dynamics of the alcoholic. For this reason, one should be more cautious about accepting patient perceptions of the treatment milieu. Rather than merely considering the validity of patient milieu perceptions, the clinical question is whether their perceptions of milieu affect treatment outcome. This is consistent with James and Jones (1974), who maintain that subjects' perceptions of milieu are more likely than the actual milieu to directly affect their attitudes and behaviour.

#### Section 20.4. The Relationship between Patient and Staff Responses to the WAS(COPES)

Looking at chapters 10 and 14, one sees there is reasonably good correspondence between those scales of the WAS(COPES) that discriminate between the treatment programmes with respect to staff and patient milieu perception. Both groups show an ability to discriminate between the treatment programmes on the Autonomy, Personal Problem Orientation, Practical Orientation, and Staff Control subscales of the WAS(COPES). One could also include the Involvement subscale, since it comes very close to being able to discriminate between patient perceptions of the treatment programmes. One should, however, accept the patient-staff correspondence with some degree of caution,

since the discrimination tests for staff were based on all five treatment programmes, while it was necessary to pool data for patient perceptions because of the small numbers in programmes C and D.

In order to test whether or not patients and staff had similar perceptions, it was necessary to combine patients and staff into a single sample. Medians for the total patient and staff sample were computed, and median tests (see chapter 10) were performed to see whether patients responded differently from staff to the WAS(COPES) subscales. The results indicated that patients were significantly different from staff on the Anger and Aggression ( $x^2=38.35$ ; d.f.=1), Order and Organization ( $x^2=12.64$ ; d.f.=1), and Staff Control ( $x^2=5.64$ ; d.f.=1) subscales. For the Order and Organization and Staff Control subscales, more patients scored above the combined median than did staff. The reverse is true for the Anger and Aggression subscale. These differences can be understood in terms of patient dependency needs. Patients who are dependent on the treatment programme will be uncomfortable in expressing hostility and will, therefore, not see the treatment programme as stressing Anger and Aggression. Similarly, patients who are highly dependent and who enter treatment at a time of crisis might have a tendency to see the programme as stressing Order and Organization and Staff Control. Also, if we examine the varimax-rotated factor loadings resulting from the principal component analysis in chapters 10 and 14, we see that patients and staff in the present study have dissimilar perceptual

structures. The differences between patient and staff perceptions support the hypothesis advanced by Moos (1974), Graham et al. (1971c) and Allon et al. (1971) that, while there are similarities in patient and staff perceptions, there are enough dissimilarities to indicate that the two groups perceive treatment milieux in different ways.

Whether or not this definitively supports the idea of separate patient and staff subcultures, advanced by Goffman (1961), is difficult to say. However, if there were separate patient and staff subcultures, one could expect that, at some point, patient and staff perceptions would differ. Moos (op. cit.) has hypothesized that patients' milieu perceptions become similar to those of staff, as the length of treatment contact increases. The present study was not designed to test this hypothesis and we, therefore, do not have the data that would allow for the acceptance or rejection of this possibility.

#### Section 20.5. Methodological Difficulties in the Use of the WAS(COPES) and Recommendations for Future Use

The versions of the WAS and COPES used in the present study did not pose any special difficulty with respect to administration, once it was decided to administer the forms orally to patients, rather than as a self-report instrument. There were, however, methodological difficulties posed by the fact that each of the subscales, with the exception of the Support subscale of the COPES, had only four items. This necessitated the use of rank-order correlation coefficients, because the five-point

WAS(COPES) subscales were thought not to be continuous. Longer subscales would have allowed the use of parametric rather than non-parametric analyses. This would have been particularly advantageous in the case of correlation coefficients, since there is no universal agreement on the feasibility of using other than Pearson product-moment correlation coefficients as the basis for a principal component analysis.

Using the longer version of the WAS or COPES (Moos, 1973) is not seen as advisable in the context of studies such as this. The inclusion of the longer versions of both instruments as part of a research interview, where the patient is expected to answer a considerable number of questions, might serve to antagonise the patient and make cooperation in further interviews less likely. In order to obviate this problem, it might be possible to only include longer versions of WAS and COPES subscales which discriminate between the treatment programmes for both patients and staff. More work needs to be done in the area of milieu perception as it relates to alcoholism treatment outcome, before we can arrive at definitive conclusions concerning further modification in the WAS and COPES subscales used in the present study.

#### Section 20.6. Summary

It was concluded that patient and staff responses to the WAS or COPES provide a reasonably valid assessment of the treatment milieu. Patients and staff do, however, differ in their WAS(COPES) subscale scores and in their



respective principal component solutions. Differences in patient and staff perceptions might be due to one of the following: (1) patients have not been in contact with the treatment setting as long as staff; (2) the process of withdrawal during the early stages of treatment might hamper patients' ability to assess the treatment milieu; or, (3) the alcoholics dependency needs and his entering treatment under a time of crisis. Using longer versions of WAS(COPES) subscales, after further research, was also seen as being advantageous.



## CHAPTER 21

### The Use of the BLRI as a Measure of Staff-Patient Relationships

#### Section 21.1. Introduction

It has been shown in chapter 5 that therapist qualities of empathy, warmth, acceptance and self-disclosure are important ingredients in the therapeutic process. The Barret-Lennard Relationship Inventory (BLRI) was selected for the present study because it was a reasonably short paper-and-pencil measure of the above qualities.

#### Section 21.2. Staff Responses to the BLRI

In looking at how staff in the present study related to patients, we were not concerned with making any comparison between how alcoholism treatment staff relate to patients as compared to staff in other types of treatment programmes. To do this would have necessitated giving the BLRI to staff who did not work with alcoholics.

Looking at the five treatment programmes, staff responses, in general, agreed with what was known about staff-patient relationships from unstructured clinical observation. There was, however, a tendency for staff who omitted their position to report that they related more negatively (higher BLRI subscale scores) toward patients than staff who indicated their position. Perhaps

the latter group of staff feared identification and, therefore, had the need to indicate more positive relationships to patients. It should be noted, however, that the possible bias which might have resulted from indicating one's staff position was not marked, since the differences in BLRI subscale scores between the two groups of staff only reached significance for the Empathy (E) subscale.

When staff responses to the BLRI were subjected to a principal component analysis, two factors emerged. One factor indicated a generalised negative relationship to the patients, while the other factor indicated withholding of feelings and experiences (of the staff) from the patients. The fact that two components emerged from the principal component analysis did not support the idea, discussed in chapter 5, that there was one underlying factor which accounted for how staff related to patients. This would suggest that staff-patient relationships are more complex than could be accounted for by a one-dimensional model.

Barret-Lennard (1962) recommended removing the Willingness to be Known (W) subscale from the BLRI, as he thought it was conceptually part of the Congruence subscale. The results from the principal component analysis of staff BLRI subscale scores (see chapter 11) did not support this recommendation, as the W subscale loaded higher on the Withholding component than did the Congruence (C) subscale. This might suggest that the C, rather than the W subscale, should be the one to be deleted. More work, however, needs to be done in this area before we can

delete any subscales.

The data analysis of staff responses to the BLRI revealed several important limitations inherent in the instrument. Firstly, there is the possibility of over-positive responses, which has already been noted. Secondly, given the high degree of subscale intercorrelation, it is possible that we are measuring two dimensions, rather than five independent areas of patient-staff relationship. Perhaps the BLRI could be redesigned to yield only two subscales. Thirdly, there is no guarantee that we are measuring actual behaviour that staff show toward patients. The only alternative would be to develop a rating schedule where the actual behaviour of the staff toward the patients might be noted. Such a technique would have involved lengthy periods of observation, which were impractical in terms of the present study.

### Section 21.3. The Relationship between Staff Responses to the BLRI and Their Responses to the WAS(COPES)

In examining the importance of treatment milieu, we made the assumption that environment affects behaviour. This is consistent with the views of Wicker (1974). We have also made the assumption that the BLRI is a measure of staff behaviour. Given these two assumptions, it ought to have followed that staff responses to the WAS(COPES) should influence responses to the BLRI. In chapter 11, we found that the reverse might be true; namely, there was evidence to suggest that subjects' responses to the BLRI influenced their responses to the WAS(COPES).

One possible explanation for this is that the BLRI, rather than being a measure of overt behaviour, is a measure of attitudes or personality characteristics of the respondent. Astin and Holland (1974) have indicated that the nature of the group members helps to determine the climate of the group. Although their work is primarily concerned with educational environments, the idea should be applicable to psychotherapeutic settings, as well. Kish et al. (1971a) showed that staff attitudes toward mental illness were related to their perceptions of the treatment atmosphere. Similarly, Kish et al. (1971b) noted that there was a significant difference in eight of the ten WAS subscales between patients who were rated as externally-oriented and those who were rated as internally-oriented on the Rotter (1966) I-E scale. These two studies suggest that attitudes or personality variables are related to milieu perception, thus supporting Astin and Holland's hypothesis. Moos (1974) discounted the findings of Kish et al. (1971b) by maintaining that it was possible for external and internal patients to be assigned to different wards, so that the study really measured the test's ability to discriminate between wards. This argument seems rather unconvincing. If personality characteristics or attitudes affect milieu perception and if BLRI responses are taken as a rough indicator of these two classes of variables, then this might suggest why staff responses to the BLRI appear to influence their milieu perception.

#### Section 21.4. Recommendations

We have discussed the difficulties inherent in the use of the BLRI as a measure of staff-patient relationships. Meltzoff and Kornreich (1970) indicate the need for developing a measure of actual behaviour. We have already noted that such a measuring instrument would be time-consuming to use, and therefore impractical. Wicker (1974) suggests developing an instrument that gives subjects model situations and asks how they would behave under those situations. This procedure, according to the author, is a better indicator of behaviour than more attitudinally oriented measures. Such a technique has its limitations in that it would probably involve more time for the staff to complete it, thus lessening the likelihood of staff cooperation. Given the brevity and ease of administration, the BLRI should not be rejected as a measure of staff-patient relationships. One might improve the validity of responses by removing all identifying information.

#### Section 21.5. Summary

In general, staff responses to the BLRI agreed with what was known about the treatment programmes. There was a slight tendency, however, for staff who reported their staff position to indicate more positive responses than those staff who omitted their position. The BLRI had several problems, most serious of which is that one cannot be sure that the instrument actually is a measure of behaviour or whether it is a rough measure of personality

characteristics or attitudes of the staff. Alternative procedures for assessing staff-patient relationships were considered, but it was felt that these would be less practical to administer. Future research should concentrate on refining the BLRI, as it may measure only two areas of staff-patient relationships, rather than five. Also, efforts should be directed toward insuring that staff responses are not biased by fear of losing one's anonymity.

## CHAPTER 22

### The Importance of Staff Perception of Treatment Milieu and Staff Perception of Staff-Patient Relationships

#### Section 22.1. Introduction

We have already seen in chapter 17 that specialised treatment facilities (programmes A and E) have patients who gain more from treatment in terms of improvement in perceived psychological functioning, as measured by the PSY subscale of the CAS, and decrease in orientation toward alcohol, as measured by the Alcadd subscale scores. Moreover, it was found that the level of PSY, P and R subscale scores, obtained at the admission and discharge interviews did not account for why patients in programmes A and E showed greater gains in these areas than other patients. Similarly, one could generally not attribute the superior treatment gains made by patients in these two programmes to differences in the distribution of patient characteristics. This is consistent with Blaney et al. (1975), who noted that there was not a consistent relationship between patient characteristics and treatment outcome, making patient characteristics poor predictors of treatment outcome.

Patient perceptions of treatment milieu were also poor predictors of treatment gains, as has been noted in



chapter 18. This leads us to the possibility that some factor, other than those indicated above, is accounting for the superiority of programmes A and E. This chapter will consider alternatives that might account for these findings.

#### Section 22.2. BLRI Subscale Scores and Corresponding Factor Scores

One possibility that might account for the superior gains made by patients in programmes A and E is the manner in which staff relate to patients. Rogers (1957) indicated that the qualities of empathy, regard, acceptance and self-disclosure, as shown to patients by the staff, are necessary determinants of patient change. We have seen in chapter 19 that there was no association between whether or not a programme scored high or low on the W subscale of the BLRI and the degree to which patients showed increases in perceived psychological functioning and decreases in orientation toward alcohol. As mentioned earlier, this type of analysis is rather crude. Also, the above analysis was only meaningful when there was a significant difference between the treatment programmes, with respect to the independent variable. The only other feasible method of analysis would have been to compute the average staff BLRI subscale scores for each programme (combining programmes C and D) and to correlate them with each programme's average patient change, with respect to PSY and Alcadd subscale scores. This method of analysis has some disadvantages (see chapter 19), but it allows us to include data that were not otherwise readily analysable.

A Spearman rank-order correlation analysis revealed no significant relationship between the average staff BLRI subscale scores and the average amount of change in patient PSY and Alcadd subscale scores. It does not appear, therefore, that staff relationship to patients is an important determinant of patient change with respect to PSY and Alcadd subscale scores.

There is another possibility yet to be considered. Perhaps, aspects of staff-patient relationships, taken together, rather than independently, might contribute to patient change. In order to test this possibility, factor scores were computed for each staff member, based on the principal component analysis given in chapter 11. Average factor scores on each component were computed for each treatment programme, combining programmes C and D. These were then correlated with the average patient change scores for each programme, again combining programmes C and D. A Spearman rank-order correlation analysis revealed no significant relationship between the average staff factor score and the average patient change in PSY and Alcadd subscale scores, for the four programmes under consideration. Based on the evidence presented, we can conclude that the manner in which staff relate to patients did not account for why patients in programmes A and E showed superior treatment gains in the above areas.

There are several reasons why the data failed to confirm the idea that how staff relate to patients is an important determinant of patient change. The first possibility is that disturbances in patients' thought

processes, shown during the early stages of treatment, might make it difficult for the patients to respond to the staff-patient relationships, as measured by the BLRI. The second possibility is that patient change, shown during the beginning phases of treatment, might be more a response to the patient perceiving staff as authority figures than a response to the quality of staff-patient relationships. This is consistent with the idea already discussed that patients might show initial change as a manifestation of gratitude,<sup>OR</sup> the desire to be seen as being needful of treatment. Lastly, the possible invalidity of the staff's BLRI responses could reduce the correlation between the programme's average BLRI subscale scores and its average patient change scores, on the PSY and Alcadd subscales.

Section 22.3. Staff WAS(COPES)  
Subscale and Corresponding  
Factor Scores

Another possibility that might account for the results in the present study is the staff perception of the treatment milieu. Moos (1974) considers this an important aspect of the treatment process. It was noted in chapter 19 that staff scores on the Involvement, Anger and Aggression, Autonomy, and Practical Orientation subscales of the WAS(COPES) were associated with whether or not patients showed improvement in their perceived Psychological Functioning or Employment Functioning CAS subscale scores, between the discharge and follow-up interviews. This, as indicated in chapter 19, is slightly above what one would

expect by chance at the .10 level of significance.<sup>1</sup> Although the results are not sufficient to confirm the hypothesis that a programme's staff milieu perceptions are associated with patient therapeutic gain, this evidence does suggest the possibility of a re-examination of the data, given that no other element within the treatment process produced a greater number of significant associations. We see from chapter 19 that programmes where staff perceive a high degree of Involvement and Anger and Aggression have a greater proportion of patients showing improvement in psychological functioning between the discharge and follow-up interviews. Since the staff in programmes A and E demonstrate high scores on the Involvement and Anger and Aggression subscales, this might partially account for the superiority of these two programmes, with respect to improvement in their patients' PSY subscale scores, between the discharge and follow-up interviews.

It has also been noted in chapter 19 that a higher proportion of patients showed no change or deterioration in their perceived employment functioning, between the discharge and follow-up interviews, in programmes where staff scored high on the Autonomy and Practical Orientation subscales of the WAS(COPES). Staff in programmes C + D and E scored relatively high on these subscales. Hence, this might account for the relatively poor performance of patients in these programmes with respect to improvement in perceived employment functioning during this period.

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<sup>1</sup>Given 6 WAS(COPES) subscales and 5 CAS and Alcadd subscales.

Another factor which might account for the higher proportion of patients in programmes C + D and E who show a decline in perceived employment functioning is the fact that patients in these programmes have a higher mean E subscale score, at the time of discharge, thus allowing more room for decline.

Similar to the previous section, Spearman rank-order correlations were computed for the relationship between the average staff WAS(COPES) subscale scores in each programme (combining data in programmes C and D) and the average patient change in PSY and Alcadd subscale scores. This allowed additional WAS(COPES) subscale responses to be analysed, which would not have been possible using the chi-square technique. It also allowed one to consider the magnitude of change, which would not have otherwise been possible. Average staff scores on the AA subscale were found to be correlated with average patient change ( $\rho=1.00$ ;  $p=.05$ ) in perceived psychological functioning between the admission and follow-up interviews. This suggested that the more the staff in a treatment programme stressed the importance of Anger and Aggression, the greater the improvement in patient perceived psychological functioning between the admission and follow-up interviews. Since staff in programmes A and E showed relatively high scores on the Anger and Aggression subscale, this could then explain why patients in these programmes showed a greater improvement in perceived psychological functioning during this period.

Considering changes from the discharge to the follow-

up interview, there was a significant correlation ( $\rho=-1.00$ ;  $p=.05$ ) between the average patient change score on the PSY subscale and the average staff score on the Spontaneity subscale of the WAS(COPES). This would indicate that patients show less improvement in programmes where staff score high on the Spontaneity subscale. There is also a significant correlation ( $\rho=1.00$ ;  $p=.05$ ) between the average patient change score on the R Alcadd subscale and the average staff score on the Spontaneity subscale of the WAS(COPES). Given that the computer interprets a reduction in Alcadd subscale scores as a lower numerical value, a correlation of 1.00 indicates that the higher the mean staff score on the Spontaneity subscale, the lower the average reduction in patient R subscale scores. There was also a significant correlation between the average staff score on the Spontaneity subscale and the mean change score on the P subscale of the Alcadd ( $\rho=1.00$ ;  $p=.05$ ). Since staff in programmes A and E show relatively lower mean Spontaneity subscale scores, this might account for why patients in these two programmes showed greater increase in their PSY subscale scores, and greater reduction in their P and R subscale scores, than did patients in other programmes.

Another possible explanation for the superiority of programmes A and E was that the subscales of the WAS(COPES) were acting in unison, rather than individually, to affect patient improvement. In order to test this explanation, average factor scores were computed for each treatment programme, combining the data for programmes C and D.



The factor scores were based on the principal components solution given in chapter 10. The results indicated that the higher the score of a programme on the Patient-Centred component, the more likely were patients to show improvement in perceived psychological functioning, between the admission and follow-up interviews ( $\rho=1.00$ ;  $p=.05$ ). As before, the average patient change score for each programme was used in the analysis. Since programme A had the highest score on the Patient-Centred component (see chapter 10), this might partially account for why patients in this programme showed greater improvement in their psychological functioning during this period. The same would hold true for programme E. The fact that staff in programme E show a lower score on this component than programme A might account for why patients in programme E showed less improvement in perceived psychological functioning than patients in programme A.

There was also a negative correlation between the magnitude of the average staff score on the Staff-Centred component and the magnitude of the programme's average patient change score, with respect to perceived psychological functioning between the admission and follow-up interviews ( $\rho=-1.00$ ;  $p=.05$ ). This would indicate that programmes in which staff perceived a greater degree of staff-centredness had patients who showed less ~~than average~~ improvement in their perceived psychological functioning. When factor scores were computed for the Staff-Centred component, programmes B and combined C and D had higher average factor scores than did the other programmes.



This might also partially account for why patients in these programmes showed less ~~than average~~ improvement in perceived psychological function during this time. There were no significant correlations between a programme's average staff WAS(COPES) subscale scores and average changes in either perceived psychological functioning or orientation toward alcohol, between discharge and follow-up. In summary, it can be concluded that the average staff perception of the treatment milieu is a better predictor of patient change than the individual patient perceptions.

One might have objected to the above conclusion by pointing to the possibility of a statistical artifact. Robinson (1950) demonstrated that correlations based on averages are always higher than those based on the scores of individuals. Therefore, any superiority of the average staff perceptions over the individual patient perceptions might be due to the inflated value of the correlation coefficients based on averages. In order to discount this possible objection, it was necessary to average patient WAS(COPES) subscale scores and correlate them with average patient change scores, as had been done for the staff. If the magnitude of the staff correlations were larger than for the patients, given the same averaging procedure in both instance, this would point to the superiority of the staff perceptions. The results of a Spearman rank-order correlation analysis for the relationship between the average patient WAS(COPES) subscale score and average patient change scores indicated that, in no instance, was

there a significant correlation coefficient. Moreover, the general trend was for the Spearman rank-order correlation coefficients based on average patient WAS(COPES) subscale scores to be smaller than those based on average staff WAS(COPES) subscale scores. One can, therefore, discount the possibility of a statistical artifact and conclude that the staff perception of the treatment milieu is still a more important determinant of patient change, with respect to PSY, P and R subscale scores, than are patient milieu perceptions.

One should be cautious in accepting these findings. As mentioned earlier, averaging the responses does have disadvantages, the most serious of which seems to be that one is conducting an analysis of the data based on a substantial reduction of available information. Also, combining staff perceptions in programmes C and D might have had spurious results, in instances where their respective subscale scores were very dissimilar. However, it should be noted that our choice of this type of analysis was based on the fact that a more refined technique was not available.

Given the evidence pointing to the possibility that staff milieu perceptions might be more important determinants of patient change in perceived psychological functioning and orientation toward alcohol than patient perceptions, we must consider some reasons that might account for this. One possible explanation is that patient milieu perceptions might be less valid than those of the staff, since many of the patients had limited treatment contact

with their programme.

A second possibility is based on a behaviour modeling paradigm. In this context, it is assumed that staff behave in a manner consistent with their milieu perceptions. For example, staff who score high on the Involvement subscale might encourage patients to interact with each other and to take an active part in the treatment process. Additionally, staff who score high on this subscale might be more likely to interact with patients in the treatment setting and to take an active part in the day-to-day functioning of their respective programmes. Patients might then begin to acquire the staff behaviour by a process of imitation and shaping. Staff, then, are seen to be examples that the patients can successfully emulate. The acquisition of new patient behaviour could then be seen as leading to patient change, outwith the treatment setting.

The idea that the alcoholic patient might acquire new behaviour, thought to be therapeutic, by a process of imitation is consistent with Schein (1969), who notes that the changee often acquires the behaviour of the change agent by a process of imitation. Furthermore, Bishop and Beckman (1971) have suggested that the alcoholic, more so than other patients, is susceptible to the process of imitation.

There are at least two reasons why the alcoholic might choose to emulate the staff. Staff could be perceived as being in a position of authority (Schein, *op. cit.*) or as holders of expertise. Secondly, the patient might perceive the staff as capable of granting approval

for appropriate behaviour. This might especially be true, given the alcoholic's high need for approval (Glatt, 1969). The idea that alcoholic patients can acquire new behaviour within the treatment setting, by a process of modeling, is consistent with the work of Jacobs and Trick (1974), who noted this for a more heterogeneous psychiatric patient population.

If we accept the idea that staff behave in a manner that is congruent with their scores on the WAS or COPES, we can use the above model to partially account for superior gains in psychological functioning and orientation toward alcohol shown by patients in programmes A and E. We have already seen that high scores on the Involvement subscale are associated with patient improvement in perceived psychological functioning. Given the relatively high scores for staff in these two programmes on the Involvement subscale, perhaps it can be said that staff in programmes A and E show behaviour indicative of their taking a more active part in the treatment process. This supposition is consistent with the descriptions of both programmes, given in chapter 8. Patients in these programmes might learn to become more involved in treatment by observing and imitating staff behaviour, which in turn could lead to improved psychological functioning. In offering the above explanation, it is assumed that patients' active participation is an important aspect of alcoholism treatment and that patients are initially deficient in their ability to do this. Both of these assumptions have been indicated by Glatt (1969) and Mullin (1975).

We have also seen that high staff scores on the Anger and Aggression subscale of the WAS(COPES) are related to patient improvement in perceived psychological functioning. If we accept Moos's (1974) contention that patients are often unable to express hostility, or fearful of doing so, then the modeling paradigm might explain why staff scores on the Anger and Aggression subscale are related to improvement in perceived psychological functioning. As in the previous example, patients are seen to learn constructive expression of hostility by being in contact with staff who are able to express hostility in a constructive manner. In this context, it seems reasonable to think that there is at least some relationship between high staff scores on the Anger and Aggression subscale and staff behaviour indicating an ability to constructively express feelings of aggression. The patient can then begin to learn how to express constructive hostility by observing and imitating appropriate staff behaviour. The acquisition of new patient behaviour in relation to an improved ability to express hostility might then lead to improvement in the patient's perceived psychological functioning. Again, we are assuming that the ability to express appropriate feelings of hostility is an important factor in the alcoholic's treatment (McClelland et al., 1972).

It is more difficult to explain why low staff scores on the Spontaneity subscale of the WAS(COPES) should be related to improvement in patient functioning. Perhaps low scores on this subscale indicate that staff do not

spontaneously express their feelings in the treatment setting, but rather do so in a more controlled manner. One of the problems of the alcoholic is an inability to express feelings appropriately (Mullin, 1975). The alcoholic often expresses feelings at inappropriate times, or in a manner that makes it difficult for others to react favourably to him. In other words, alcoholics often express feelings in destructive, rather than constructive, ways. As before, patients might learn more constructive expression of feelings by modeling their behaviour after that of staff, who show an ability to express feelings less spontaneously. The patients' improved ability to express feelings constructively might result in deriving greater benefit from treatment and, hence, greater change. Since staff in programmes A and E show a relatively lower mean score on the Spontaneity subscale, the above explanation might help us to understand why patients in these two programmes show superior gains with respect to improvement in perceived psychological functioning and decrease in perceived orientation toward alcohol.

The above paradigm is not without limitations. Relating staff milieu perception to patient behaviour through the mediating factor of staff behaviour assumes that staff behave within the treatment setting in a manner that is consistent with their milieu perceptions. This might not always be the case. There are additional factors, such as attitudes toward alcoholics (Bailey, 1970), which might also serve to determine staff behaviour. Also, it is not always the case that new patient behaviour, acquired ~~while~~



while in treatment, will lead to subsequent patient change outwith the treatment setting (Rapaport, 1960). Lastly, strict adherence to the modeling paradigm, as described above, would give a rather short-sighted view of the treatment process, since it fails to take into consideration factors other than staff milieu perception and behaviour, which might lead to patient change. These limitations notwithstanding, the above model would seem to at least partially account for the relationship between staff milieu perception and patient change.

It has also been noted that high staff scores on the Patient-Centred component are associated with greater patient gain, as are lower scores on the Staff-Centred component. High scores on the Patient-Centred component and low scores on the Staff-Centred component could be seen as an indication that staff are meeting important treatment needs of the patient. Chafetz (1967) has indicated that a programme's ability to meet the treatment needs of the patient, with a reasonable degree of speed, is an important factor in patients' maintaining continued treatment contact, which might then relate to treatment gain. Since staff in programmes A and E had relatively high scores on the Patient-Centred component and relatively low scores on the Staff-Centred component, the explanation given above could partially account for why patients in programmes A and E showed greater gain in perceived psychological functioning and greater decrease in orientation toward alcohol.



#### Section 22.4. Summary

Staff perceptions regarding their relationship to patients, as measured by BLRI subscale scores, were not related to treatment outcome, even when the composite factor scores were considered. It is possible that alcoholic patients, during the early stages of treatment, are not in a position to respond to the aspects of staff-patient relationships measured by the BLRI. The possible invalidity of BLRI responses, in terms of staff indicating more positive responses than might otherwise have been justified, could have also reduced the relationship between BLRI subscale scores and indices of treatment outcome used in the present study. One explanation for why staff milieu perceptions, as measured by the WAS(COPES), were more important determinants of patient change than were patient perceptions is that patient milieu perceptions might be less valid than those of the staff. Another possibility is that staff show behaviour in the treatment setting that is seen to be therapeutic and consistent with their milieu perceptions. Patients might, by a process of modeling or imitation, begin to acquire new behaviour similar to that of the staff. Patients' new behaviour is then seen as leading to patient change outwith the treatment setting. Limitations in this explanation were also considered.

## CHAPTER 23

### Correlates of Patient Behaviour during the Follow-Up Period

#### Section 23.1. Introduction

In the previous chapter, we have seen that patient perceptions of their treatment milieu were not important determinants of change in patients' perceived psychological functioning and orientation toward alcohol. This does not mean that patient milieu perceptions have no importance in the treatment process. It has been shown in chapter 16 that patients' perception of treatment milieu is related to behaviour during the follow-up period. It has also been shown, in chapter 18, that patient change in perceived psychological functioning and orientation toward alcohol is highly related to behaviour during the follow-up period. This chapter will examine, in more detail, the relationships between patient milieu perception and follow-up behaviour and the relationship between changes in the above-mentioned outcome variables and follow-up behaviour.

#### Section 23.2. Patient Perception of Treatment Milieu

We have already mentioned that the Personal Problem Orientation, Program Clarity, and Anger and Aggression subscales of the WAS(COPES) seem to be most important for

the patients in terms of their association with favourable behaviour during the follow-up period (see chapter 16). The importance of perceiving treatment as high in Personal Problem Orientation can best be understood in terms of McClelland's (1969) work, which delineated the conditions necessary for the individual to acquire new motives. McClelland notes that changes in motives are more likely to occur where the setting dramatises the importance of self-<sup>study</sup>~~study~~. In this context, a change in motives can be viewed as analagous to the acquisition of new behaviour and self-study can be thought of as analagous to the expression of personal problems. Another possibility is that the degree to which a patient scores high on the Personal Problem Orientation subscale can be seen as an indication of the patient's readiness to accept responsibility in dealing with his alcohol problem by acknowledging the importance of exploring personal difficulties, which might underlie the drinking problem. The importance of accepting responsibility, as measured by a score on the Internal-External Orientation scale, has been noted by O'Leary et al. (1975).

Anger and Aggression has been shown to be another important aspect of the treatment atmosphere, from the patient's perspective. The more the patient perceives the treatment as stressing Anger and Aggression, the fewer bouts he is likely to have reported as occurring during the follow-up period and the shorter is likely to be the length of the longest bout. McClelland et al. (1972) have shown that heavy drinking is related to patient

aggressiveness, as measured by the TAT. Perhaps patients who see treatment as expressing Anger and Aggression will be more likely to "work through" their aggressive feelings, and, therefore, be less likely to show behaviour indicative of heavy drinking.

The Program Clarity subscale was also seen to be related to patients' behaviour during the follow-up period. Patients who saw the treatment environment as stressing Program Clarity had a longer length of abstinence and a lower frequency of drinking during the follow-up period. Walton (1969) underscores the need to have unambiguous information regarding the change agent if one is going to show attitudinal change. Perhaps patients who score high on Program Clarity see their treatment programmes in less ambiguous terms and are, therefore, more likely to change in ways that will bring about positive behaviour during the follow-up period. One possible explanation for the relationship between high Program Clarity subscale scores and behaviour indicating reduced alcohol consumption, during the follow-up period, centres on the notion of patient integration within the treatment setting. Perhaps the patient who has a clearer idea about his treatment programme will show less of a difference between the perception of his treatment milieu and his perceptions of an ideal treatment milieu. Moos (1974) has indicated that the lower the discrepancy between the patient's perception of his milieu and his perception of what it might ideally be like, the more satisfied he was with the treatment environment. Greater satisfaction with treatment

might then lead to favourable treatment outcome, e.g., behaviour indicating reduced alcohol consumption during the follow-up period.

Also, patients who have a clearer idea about their treatment programme might perceive the treatment milieu similarly to staff and other patients. Moos (op. cit.) has indicated that patients who hold deviant perceptions of the treatment milieu, as compared to their reference group, feel less satisfied with treatment and tend to show poor outcome.

Finally, it is interesting to note that patients who scored high on the Staff Control subscale attended more outpatient sessions (including AA) during the follow-up period. It has been noted already that continued treatment contact is often associated with favourable treatment outcome. Given this fact, the Staff Control subscale might be a potentially important dimension of the treatment milieu. We have already stated that the patient relates to the change agent as an authority figure. Perhaps the relationship between the number of sessions attended and the patient's score on the Staff Control subscale could be a manifestation of the alcoholic perceiving the staff as an authority figure. On the other hand, the relationship could also be a manifestation of the alcoholic's dependency needs, which have already been noted.

Prior analysis indicated that behaviour during the follow-up period was related to changes in social functioning and orientation toward alcohol. We have noted

that patients' perceptions of treatment milieu were related to their level of perceived social functioning and orientation toward alcohol. It is therefore possible that the relationship between patients' perceptions of their treatment milieu and their behaviour during the follow-up period might be merely a result of the fact that both variables are related to the level of perceived social functioning and orientation toward alcohol. In order to test this possibility, it was necessary to compute Pearson product-moment partial correlation coefficients for the relationship between follow-up behaviour and milieu perception, controlling for CAS and Alcadd subscale scores obtained at the admission and discharge interviews. The number of correlation coefficients (several hundred) resulting from this analysis would be too great to report, but a visual inspection indicated that there was little difference between the zero-order Pearson product-moment correlation coefficients for the relationship between milieu perception and follow-up behaviour and the value of the partial correlation coefficients, after controlling for CAS and Alcadd subscale scores. We may therefore conclude that the relationship between patient perception of the treatment milieu and behaviour during the follow-up period (measured in terms of abstinence length, drinking frequency, etc.) is not spurious.

Additionally, the relationship between patients' WAS (COPES) subscale scores and their behaviour during the follow-up period might be due to the relationship between patient characteristics and WAS(COPES) subscale scores.



Unfortunately, it was not possible to control for patient characteristics. However, one can see from chapter 14 that the relationship between patient characteristics and WAS(COPES) subscale scores was not marked. Given this, it would seem to indicate that patient characteristics would not exert a very strong influence as confounding variables. This would then allow one to again conclude that the relationship between patient WAS(COPES) subscale scores and behaviour during the follow-up period is not spurious.

Section 23.3. Patient Change in  
Perceived Psychological  
Functioning and Orientation  
toward Alcohol

It has been shown in chapter 18 that changes in patients' rationalisation of their drinking behaviour are slightly better predictors of patient behaviour during the follow-up period than are changes in their preference for alcohol. As mentioned earlier, O'Leary et al. (1975) have noted that, following treatment, patients move in the direction of accepting more responsibility for their behaviour. Perhaps a decline in patients' R subscale scores (measuring rationalisation of one's behaviour) is indicative of acceptance of greater responsibility for one's behaviour. The inferiority of the P subscale as a predictor of follow-up behaviour can also be understood in terms of the possible invalidity of the preference measure. Perhaps alcoholics might indicate a fall in preference because they feel it is the correct response. They might also tend to show a decline in P subscale scores



because they feel, perhaps unrealistically, that they will be able to avoid drinking. This is consistent with Gozali and Sloan (1971), who note that alcoholics who score excessively high on the Internal dimension of the Rotter I-E scale might unrealistically maintain that they can control their drinking.

This latter possibility suggests an interesting clinical point. O'Leary et al. (1975) have noted that patients were observed to move in the direction of higher internal orientation following treatment. Gozali and Sloan (1971) maintain that subjects who score unusually high on the Internal dimension of the I-E scale have difficulty in controlling their drinking. Viewed together, these studies would suggest that there is an optimal level of internal orientation or responsibility to be achieved during treatment. Either too high or too low internal orientation might lead one to have difficulty with drinking behaviour.

If we examine the data presented in chapter 18, we see that changes in patients' psychological functioning are more highly associated with behaviour<sup>1</sup> during the follow-up period than are changes in the other areas of social functioning measured by the Clarke Adjustment Scale. One possibility for this, as noted before, was that these other areas of social functioning might be less amenable to change following short-term treatment intervention.

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<sup>1</sup> Indicating decreased alcohol intake.

#### Section 23.4. Summary

Based on the data discussed in this chapter, it was concluded that patients' perceptions of their treatment milieu are associated with behaviour during the follow-up period. This underscores the importance of such perceptions. The fact that patient decline in their R subscale scores is a better indicator of behaviour during follow-up than declines in P subscale scores might suggest the importance of patients' accepting responsibility during treatment or the possible invalidity of the P subscale. The importance of the Anger and Aggression subscale of the WAS(COPES) can best be understood in terms of the power needs of the alcoholic and his general inability, in most circumstances, to handle the expression of hostility. The importance of the Personal Problem Orientation subscale can best be understood in terms of the need for the alcoholic to accept or share (with the treatment agency) the responsibility for beginning to "work through" personal problems associated with drinking. Lastly, the importance of the Program Clarity subscale can best be understood in terms of the patient's need for clear information regarding the treatment process.

## CHAPTER 24

### Treatment Recommendations, Research Limitations and Suggestions for Future Research

#### Section 24.1. Introduction

This chapter will consider some of the ways that treatment might be improved, given the importance of certain aspects of the treatment milieu that have already been noted. We will also consider the limitations of the present study, as well as important areas for future research.

#### Section 24.2. Treatment Recommendations

It has been shown in the present study that the milieu perceptions of the staff, and to a lesser extent of the patients, do play a part in the treatment outcome. In this context, treatment outcome included both changes in outcome variables and behaviour during the follow-up period. From an overview of the staff perceptions, we see that the most important aspects of milieu appear to be low Spontaneity, high Involvement, and Anger and Aggression. Looking at the staff WAS(COPES) subscale scores in unison, we see that patient-centredness and low staff-centredness are also important. From the patient perspective, it would appear that the Personal Problem Orientation,

Program Clarity, Anger and Aggression,,and Staff Control subscales appear to indicate important dimensions of the treatment milieu, because these subscales are related to behaviour shown during the follow-up period.

Given this information, we must then ask the question of how best to create the specific aspects of milieu delineated above. It would seem easiest to accomplish this within the context of specialised treatment programmes. Such settings enable staff to meet important treatment needs of alcoholic patients, without having to worry that they are conflicting with the needs of other patients. An important dimension of milieu is that the staff are able to stress the need for becoming involved in the treatment process. One might more readily accomplish this if one were to have received specialised training in the care and treatment of the alcoholic. With specialised training, the staff might be less threatened by having the alcoholic become actively involved in the treatment process. Such training could be provided either during external courses or within the context of a specialised treatment setting.

It is important for patients to learn to express hostility. As mentioned before, patients learn constructive expression of hostility by observing staff behaviour. In this context, staff must be able to communicate to patients that it is acceptable to ventilate hostility in a controlled way. In order for the staff to be able to do this, they must be able to deal with their own feelings of hostility (Maloney, 1975). Several training programmes,

using sensitivity training techniques (Gibb and Gibb, 1969; Clark, 1969), have been designed to assist staff in this task.

We have noted the importance of the patient receiving clear information about the treatment process. This can be done as part of the intake process (Gallant et al., 1966). It can also be done by extensive written information regarding the workings of the treatment programme, which can be given to the patients. Within the context of gaining a clear idea of treatment, it would seem advisable to establish a minimum of a two-phase treatment programme. During the first phase, patients can learn about what is expected from them during the course of treatment, before going on to a more intensive phase. During this preliminary phase, patients might learn how to participate in, contribute to and benefit from groups. This would seem to be essential, since many of the patients in the present study had little prior experience in group psychotherapy. It would seem wise, given the patients need for clear information, to include a series of lectures during the early phase of treatment. These might focus on specific problems the alcoholic might face, during the early stages of recovery. The Merseyside Council has used the lecture approach with considerable success (Madden and Kenyon, 1975). One should keep the early stage of treatment as clear and unemotional as possible. The clinical experience of the author is that patients, in the early stages of treatment, cannot comprehend deep psychological problems or emotionally-

oriented psychotherapy. Two things might account for this. Firstly, in the early stages of recovery, patients' thought processes might not be clear enough to comprehend emotional issues. Secondly, many patients, because of their inability or inexperience in showing emotion, might be frightened of treatment geared toward the exploration of patients' emotional difficulty.

Given the importance of exploring one's personal problems, efforts should be made, during the second phase of treatment, to incorporate group psychotherapy in the programme. Group meetings should be held a minimum of one per day, if the programme is inpatient, and twice weekly, if outpatient. It has been the author's clinical experience that less than two group meeting per week is not advisable because patients find that there is too much intervening time between meetings. Too long a time between meetings tends to "dilute" the importance of the material discussed, in that the material becomes too intellectualised. As mentioned before, many patients will find it difficult to express emotional problems during the early stages of treatment. For this reason, it might be wise, in the beginning group meetings, to concentrate on the importance of expressing problems and the way in which such an expression might best come about. In the group meeting, it is particularly important to encourage the patients to express their hostility. One must recognise, however, that patients in early phases of treatment often have considerable difficulty in doing this (Moos, 1974), so that particular attention should be paid to helping



patients in this area. It has been the experience of the author that patients are often reluctant to express hostility for fear that they might not be able to control their hostility. The importance of helping patients to express hostility is supported by the work of Van Stone and Gilbert (1972), Judge (1971) and Dichter et al. (1971), who have all reported favourable results with alcoholics using treatment methods designed to help the alcoholic to show and accept hostility. These approaches might, however, generate a considerable amount of patient anxiety; care should therefore be taken not to introduce them too early in the treatment process.

There would appear to be three other important treatment recommendations that do not directly follow from the findings of the present study. The first is the number of staff meetings and the need for good staff communication. We have already stated the need for the staff to communicate clear information to the patients. It would seem that having an adequate number of staff meetings and good staff communication are important if staff are to accomplish this. The above recommendation follows from the assumption that, before the staff can communicate clear information to the patients regarding the treatment process, the staff must first be clear about it amongst themselves. Lack of staff consensus can also lead to patient disruptiveness. Patients might sometimes become behavioural or management problems as a way of showing their concern about staff conflicts or because they feel responsible for the dissention. For all of these reasons,



it seems quite important to develop a system for fostering good staff communication. The second treatment recommendation involves the use of recovered alcoholics and non-medical personnel in an alcoholism treatment programme. Madden and Kenyon (1975) have demonstrated that favourable results could be achieved using a variety of treatment personnel, including recovered alcoholics. One could easily get involved in a lengthy discussion regarding the role of the recovered alcoholic. Such a discussion is beyond the scope of this study. However, the author would like to point out that recovered alcoholics have been used very successfully in recovery work in the Glasgow area. Former patients are often very effective in helping the patients during the early stages of treatment, since they can help the alcoholic to better understand the immense difficulties involved in giving up alcohol. Recovered alcoholics can also serve as important role models for the patient who has just given up drinking. Often these patients feel that it is futile and purposeless to give up their drinking. The feeling of futility might stem from the patient having the idea that he or she will not be able to stop drinking. The recovered alcoholic can point to the benefits of abstinence, as well as serving as an example that it is possible to stop drinking. In using recovered alcoholics as treatment staff, one must be careful to insure that the alcoholic is not "working through" his or her own dependency needs. In other words, there exists the possibility that the recovered alcoholic might be fearful of leaving the

security of a treatment situation and, therefore, continues contact with the treatment agency by changing status from patient to worker. Given this possibility, it would seem useful to insist that the recovered alcoholic absent himself from continuous contact with the treatment agency for a period of six months to one year, before joining the staff. One should also take steps to insure that the introduction of recovered alcoholics does not result in polarisation of staff; i.e., the professional staff as opposed to the nonprofessional staff. Lastly, the director of the treatment programme must be prepared to deal with the possibility that the introduction of paraprofessionals will cause the professional staff to feel their jobs are being undermined. The problem of job insecurity might also arise if a programme, where all treatment was done by physicians, attempts to introduce non-medical treatment staff, such as social workers or psychologists. These difficulties, while important, are not unsurmountable. They must be coped with if we are to extend or enlarge treatment staffs.

Lastly, it would appear that we must broaden the scope of our treatment efforts to include a greater variety of patients. An informal survey of treatment services, which was conducted before the start of the present research, revealed that there is a scarcity of services for young persons (under 30), weekend drinkers, and older (over age 60) alcoholics. It has been the experience of the author that patients under 30 do poorly in treatment regimes where there is a preponderance of older alcoholics.

The poor prognosis of younger alcoholics has often been attributed to these patients showing a greater degree of sociopathy (Hassall, 1968). While this might be an important factor, it is also possible that younger patients might feel that they have different concerns and might not feel integrated in a programme having a preponderance of older alcoholics. In light of this, programme E has created a separate treatment programme for young persons. The preliminary results with the first eight patients have been encouraging (Fischer and Coyle, 1975). Similarly, Hamilton (1975) has obtained encouraging results using specialised hospital detoxification services for "Skid-Row" alcoholics, as an alternative to prison. Perhaps this suggests the necessity for staff to examine whether the needs of other types of alcoholic patients are being met, in relation to specialised treatment.

#### Section 24.3. Limitations of the Present Study

The present study is not without its limitations. It was the intention of this study to identify factors within the treatment process that are associated with short-term treatment success, given that most patients who return to drinking do so shortly after leaving treatment. No attempt has been made to generalise to longer term effects. One might have obtained different results using a longer follow-up period. Second, because of financial restrictions, and the fact that research had to be carried out by one person, the samples of programmes and patients are rather small. The chief drawback arising

from this was that the data from programmes C and D often had to be pooled. The problems inherent in the data analysis have already been discussed.

In the case of ordinal variables, particular problems arose in trying to compute partial measures of association. It finally proved necessary to treat the ordinal measures as interval. This was not entirely satisfactory, as there is no general agreement in the literature regarding this principle. The whole need to compute partial correlation coefficients stemmed from the study design, which used change as a criterion of treatment success. If we had been able to assign patients randomly to treatment groups, it would have been possible to use the final scores as the criterion of treatment success (Cronbach and Furby, 1970), thus avoiding the difficulty inherent in measuring change.

We are also limited in the generalisation that can be made from the present findings, since there were complete data on only 60 percent of the subjects. While this is respectable compared to other studies, a larger proportion of follow-up interviews would have been desirable. There does not appear to be any easy answer to the follow-up problem. In two of the five treatment programmes, we even went so far as to contact (at their homes) those patients who had not had a follow-up interview. The response of subjects was so poor that it was decided not to pursue the policy any further, particularly since one of the treatment programmes voiced objections to the idea.

Finally, we were limited by the constraints of the existing treatment programmes. As mentioned earlier, it would have been best to assign patients randomly to the treatment programmes and to provide matches for patients and staff. The latter need would have meant that treatment groups would have had to be closed, or that the same staff would have had to take the treatment groups, instead of the more usual policy of rotation. Both randomisation and staff-patient matching would have meant that treatment programmes would have had to temporarily relinquish control over the running of their programmes. The disadvantages of this are obvious, particularly in that it would have aroused considerable anxiety. The advantage, however, might have been that we could have identified with a greater degree of precision how patient and staff milieu perceptions interact; also, it would have been possible to use less crude methods of analysis. Whether or not the end justifies the means depends on the value the treatment programmes place on research.

#### Section 24.4 • Suggestions for Future Research

Future research should concentrate on eliminating the need to measure patient characteristics, unless these can be measured as interval variables. Since no clear trend has emerged regarding the predictive value of patient characteristics (Blaney et al., 1975), one wonders whether the crude way in which patient characteristics are often measured justifies the effort. Perhaps the crudity of the measurements and the resulting analysis

reduces the predictive power of the data. If samples were randomly chosen, the need to measure patient characteristics would be reduced, as one could assume approximate random distribution of the characteristics.

As mentioned earlier, further research concerning milieu assessment should attempt to develop more refined measuring instruments than five-point scales. Several methods for accomplishing this have already been suggested. It might also be prudent to administer the WAS(COPES) to patients at a later stage during treatment, than had been done in the present study. Patients' responses might have been more accurate or more clearly defined (i.e., showed an underlying dimensional structure) had the patients had more contact with the treatment programme. In doing this, however, one runs the risk of losing more patients, if the time between the first and second interviews is extended. Nevertheless, if the reduction in patients is not too great, one might benefit considerably from extending the time between the first and second interviews.

We have already seen that patients' perceptions of the treatment milieu are not associated with change in outcome variables following treatment. Perhaps it is the patient's expectation of the treatment milieu, rather than his perceptions of the actual milieu, that might contribute to treatment success. Moos (1974) reported on research which administered two forms of the WAS(COPES). The items were identical on both forms, except that one form was worded to elicit patients' expectations regarding the "ideal" treatment milieu. The other form elicited



perceptions of the actual milieu. Moos noted the greater the deviancy between perceptions of the actual milieu and patients' expectations, the less the patients gained from treatment. Treatment gain was measured in terms of length of discharge within the community, readmission rate and the number of problems reported. One possible explanation for this, according to Moos, was that patients with more deviant expectations felt less integrated within the treatment setting and, therefore, were less likely to benefit from treatment. This explanation seems consistent with Schein (1969), who noted that subjects with more deviant expectations felt more uncomfortable. Furthermore, Mullin (1975) has noted that alcoholic patients tend to have unrealistic or distorted expectations of treatment. Taken together, the evidence would seem to suggest that alcoholic patients with more deviant expectations regarding the treatment milieu will be less likely to benefit from treatment. Given this possibility, it would seem wise for future research to concentrate on patients' expectations of the treatment setting, as well as their perceptions of the actual milieu. Lastly, it has already been noted that patients' perceptions of the actual milieu might move closer to those of the staff given a period of extended contact with the treatment agency. In order to test this possibility, it would be necessary for future research to administer the WAS(COPES) on more than one occasion. In this way, we might be able to note the degree to which patient milieu perceptions are influenced by those of the staff.



If the Barret-Lennard Relationship Inventory (BLRI) is to be retained as a measure of staff-patient relationships, it will be necessary to ascertain whether the BLRI measures general staff attitudes, personality characteristics, or actual staff-patient behaviours. As seen previously, these are important distinctions. In the end, it might be necessary to disregard the BLRI altogether, in favour of a measure which actually notes staff-patient interaction, such as a structured behaviour checklist. Future research should also focus on the relationship between the way in which staff relate to patients and their corresponding milieu perceptions. The evidence already reported suggests the possibility that staff-patient relationships might serve to determine staff milieu perception. The possibility of this will be considered in the next chapter.

#### Section 24.5. Summary

This chapter considered treatment recommendations, limitations of the present study and possibilities for future research. Treatment programmes should be conducted so as to stress patient and staff involvement, high structure, communication of clear information regarding the treatment process, and expression and exploration of personal problems, as well as the communication and acceptance of hostility. It was also thought that treatment should be conducted in specialised treatment facilities, because they might be better prepared to provide the necessary treatment.

Some of the limitations of the present study were also discussed. The scarcity of funds and research personnel made it necessary to limit the size of the sample. It was felt that random assignment of the patients to the different treatment programmes, as well as matching patients and staff, would have eliminated some of the methodological difficulties. The follow-up data analyses were based on 60 percent of the patients who had both an admission and discharge interview. Although the percentage of patients contacted during the follow-up period is higher than in many studies, it still meant that a considerable number of patients were not accounted for in most of the analyses of the follow-up data. This, however, was unavoidable, in that more aggressive follow-up techniques, such as calling at patients' homes, yielded a very poor response.

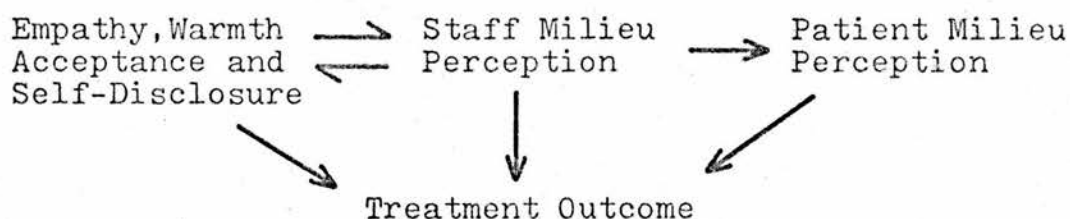
Lastly, we considered some recommendations for future research. Among the recommendations considered were the development of longer WAS(COPES) subscales, the need for random assignment of patients to the various treatment groups and the value of assessing patients' expectations of the treatment milieu, along with their perceptions of the actual treatment atmosphere.

## CHAPTER 25

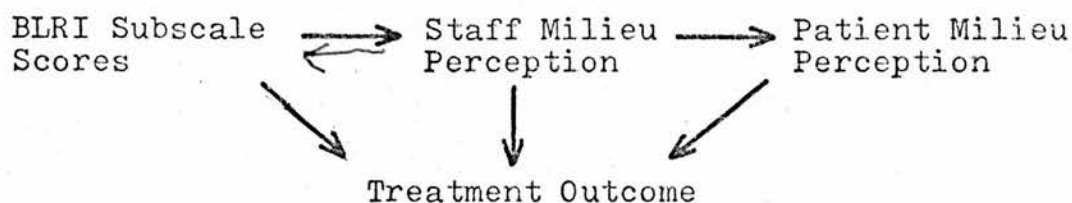
## The Possibility of a Causal Model

Section 25.1. Introduction

In chapter 7, we introduced the following model:



In terms of the present study, the basic model became:



We are now in the position to comment on this model, based on the data that were collected.

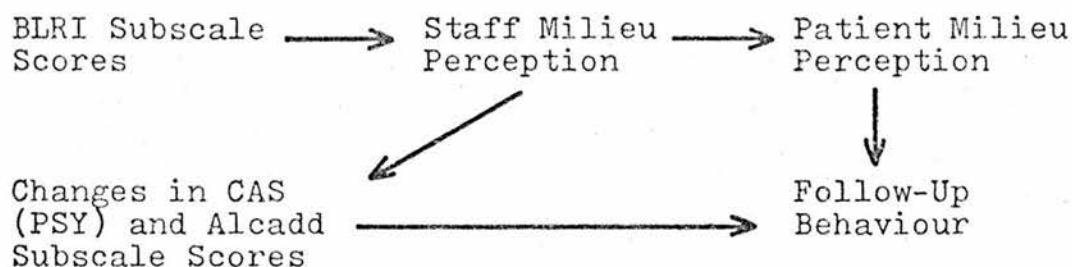
Section 25.2. The Possibility of a Causal Model

The data presented in chapter 12 give reasonable support to the view that the way in which staff relate to patients determines staff perceptions of treatment milieu, rather than vice versa. The double arrow in the above model can, therefore, be replaced by a single arrow. The relationship between the staff perceptions and the patient perceptions is more difficult. Unfortunately, as mentioned

earlier, it was not possible to match specific patients with specific members of staff, as would have been necessary for a proper correlation analysis. We have already seen that a median test comparing patient and staff perceptions found significant differences between the two groups on the Anger and Aggression, Order and Organization, and Staff Control subscales of the WAS(COPES). One would have expected a similarity in patient and staff perceptions, since they are, theoretically, perceiving the same treatment environment. Moos (1974), after extensive research involving patient and staff milieu perceptions, notes that patient perceptions move in the direction of staff perceptions, over time, so that one might conclude that staff milieu perceptions influence those of the patients. Although we cannot rule out this possibility, the data collected for the present study did not allow us to accept or reject this hypothesis.

Patient perceptions of treatment milieu were generally not found to be related to changes in social functioning or orientation toward alcohol, which were the main indicators of treatment effectiveness. Patient perceptions were related to their behaviour during the follow-up period, but the magnitude of the relationships was not especially great. A far better predictor of behaviour during the follow-up period was patient change in social functioning and orientation toward alcohol. In claiming that changes in social functioning and orientation toward alcohol are predictors of follow-up behaviour, rather than vice versa, we are accepting Cahalan's (1970) findings

that changes in psycho-social attitudes are more likely to bring about reduction in drinking behaviour than is reduction in drinking behaviour likely to bring about changes in psycho-social attitudes. The data presented in the present study suggest that the model described earlier is not entirely accurate. We can, therefore, construct the following explanatory model:



We can see from the above model that the way in which staff relate to patients, as measured by their BLRI subscale scores, helps to determine staff milieu perception, which in turn helps to determine changes in patients' psychological functioning and orientation toward alcohol, as measured by PSY and Alcadd subscale scores. Changes in these areas help to determine behaviour during the follow-up period. Patients' milieu perception also contributes to follow-up behaviour. It can be seen from the above model that patient milieu perception is related to only one aspect of treatment outcome, namely, the behaviour during the follow-up period. In terms of the present study, this is only a secondary aspect of treatment outcome. Moreover, changes in patient psychological functioning and orientation toward alcohol are far more important determinants of patient behaviour than are milieu

perception. Since the average staff perceptions are more strongly related to average patient changes in psychological functioning and orientation toward alcohol than are the average patient perceptions, we can conclude that, for the purposes of the above model, the milieu perceptions of the staff are more important than those of the patient.

This model is only exploratory and more work in future studies will be needed to confirm or disprove it. Its main drawback is that certain conclusions were based on the need to use average scores, which might lead to erroneous conclusions. Because of the exploratory nature of the model, it was felt inappropriate to use more refined statistics, such as path analysis, especially since the relative importance of each segment within the model has already been discussed. Lastly, it is necessary to note that in the social sciences we can hardly ever prove a case for absolute causality. All we are indicating is that the data obtained from the present study give support to such a model, which, in itself, must be viewed only as exploratory. As mentioned previously, future research should concentrate on developing or disproving such a model. By doing so, one would hope to gain a fuller understanding of the contribution that staff-patient relationships, staff milieu perception and patient milieu perception make toward alcoholism treatment outcome.

## APPENDIX A



EVALUATION PROJECT FORMA PATIENT INTERVIEW SCHEDULE

In order to improve treatment facilities for problem drinkers, we will be interested in finding out how you are doing approximately 10 weeks from the time you leave hospital.

Can you give us an address where we might be able to contact you approximately 10 weeks from now

Are you able to give us the name and address of a relative who knows you well and whom we will be able to contact in case we have difficulty locating you

Relative

Address

---

C 1. AGENCY NO.

C 2. IDENTIFICATION NO.

C 3. INTERVIEW

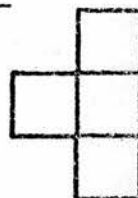
1. Admission
2. Discharge
3. Follow-up

C 4. What is your name

A 5. AGE & BIRTH DATE

Could you tell me your date of birth (age)

- |             |             |
|-------------|-------------|
| 0 = < 20    | 4 = 51 - 60 |
| 1 = 21 - 30 | 5 = 61 - 70 |
| 2 = 31 - 40 | 6 = 70 +    |
| 3 = 41 - 50 |             |



A 6. MARITAL STATUS

Could you tell me if you are:-

- |               |                |
|---------------|----------------|
| 1 = Married   | 5 = Widowed    |
| 2 = Single    | 6 = Cohabiting |
| 3 = Divorced  | 7 = Other      |
| 4 = Separated | 8 = N/K        |

A 7. MARRIAGE LENGTH

How long have you been married (if applicable)

- |                       |                  |
|-----------------------|------------------|
| 0 = < 6 months        | 3 = 6 - 10 years |
| 1 = 6 months - 1 year | 4 = 10 years +   |
| 2 = 1 - 5 years       | 5 = DNA          |

A 8. NUMBER OF PREVIOUS MARRIAGES

How many times have you been married before:-

- |                 |                  |
|-----------------|------------------|
| 1 = once        | 4 = four times   |
| 2 = twice       | 5 = five times   |
| 3 = three times | 6 = > five times |
|                 | 7 = DNA          |

A 9. Where are you living now or living before entering hospital (meaning city, town or village)

A10. What is your address or was your address before entering hospital

A11. TYPE OF ACCOMMODATION

Are you, were you living in:-

- |                 |                    |
|-----------------|--------------------|
| 1 = own home    | 4 = hostel         |
| 2 = rented home | 5 = sleeping rough |
| 3 = digs        | 6 = other          |

A12. LENGTH OF RESIDENCE

How long have you been living there:-

- |                       |                 |
|-----------------------|-----------------|
| 0 = < 1 month         | 3 = 1 - 5 years |
| 1 = 1 - 6 months      | 4 = 5 years +   |
| 2 = 6 months - 1 year |                 |

A13. LIVING WITH

Are any relatives or friends living with you there:-

- |                              |               |
|------------------------------|---------------|
| 1 = wife, or wife + children | 5 = friends   |
| 2 = cohabitee                | 6 = alone     |
| 3 = family of origin         | 7 = relatives |
| 4 = children                 | 8 = others    |
|                              | 9 = N/K       |

EMPLOYMENT FUNCTIONINGC14. EMPLOYMENT STATUS

Are you currently employed            1. YES            2. NO

C15. EMPLOYMENT STATUS, RATING

How would you classify your employment status

1. working full time continuously
2. working full time irregularly
3. working part time regularly
4. working part time irregularly
5. unemployed through no fault of my own
6. unemployed through my own choice

If unemployed, please answer the following for your last job

C16. EMPLOYMENT RELATIONS

In this situation, how do you feel you are getting on with your workmates and supervisor

C17. In this situation are your relationships with them as good as you would like them to be

1. YES            2. NO

If no, why not

C18. EMPLOYMENT RELATIONS RATING

Based on the above information, would you describe your relations with people at work as

1. very satisfactory
2. moderately satisfactory
3. neither satisfactory nor unsatisfactory, just so
4. moderately unsatisfactory
5. very unsatisfactory

C19. JOB PERFORMANCE

In your present or last job, do you feel you were performing your duties as well as you would have liked to

1. YES      2. NO

If not, why

C20. JOB SATISFACTION

Is your present (last) job one that you would have liked to keep or one that you would have liked to change because of dissatisfaction

1. KEEP      2. CHANGE

C21. JOB SATISFACTION RATING

Based on the above, how would you rate your job

1. very satisfied
2. moderately satisfied
3. neither satisfied nor dissatisfied, just so
4. moderatly dissatisfied
5. very dissatisfied

Total employment  
functioning score

--	--

A22. NUMBER OF JOBS

How many jobs have you had since  
you had a drinking problem

--	--	--

A22. LONGEST JOB

What was the length of the longest job you have  
held

- 0 = < 1 month
- 1 = 1 - 6 months
- 2 = 6 months - 1 year
- 3 = 1 - 5 years
- 4 = 5 years +

## A24. How long have you had your present or last job

- 0 = < 1 month
- 1 = 1 - 6 months
- 2 = 6 months - 1 year
- 3 = 1 - 5 years
- 4 = 5 years +

A25. SOCIAL CLASS

What is your present job (was your last job)

--

INTERPERSONAL FUNCTIONINGC26. RELATIONSHIPS WITH SIGNIFICANT OTHERS

Could you describe how you get on with your wife,  
parents, people you are living with (indicate as  
appropriate)

## C27. Do you get on with them as well as you would like to

If not, why not

C28. Does your wife (or significant others) ever get  
angry at you and why

C29. RELATIONSHIPS WITH CHILDREN

Could you describe how you get on with your children

C30. Do you get on with them as well as you would like to

If not, why not (what are the major difficulties)

C31. RATING OF RELATIONS WITH SIGNIFICANT OTHERS INCLUDING CHILDREN

Combining what you said about your spouse and children or other applicable persons, how would you rate your relations with your family. Choose one of the following, that best describes how you got on with family

1. very satisfactory
2. moderately satisfactory
3. neither satisfactory or unsatisfactory, just so
4. moderately unsatisfactory
5. very unsatisfactory

C32. MALE INTERPERSONAL RELATIONSHIPS

Could you describe how you get on with members of the same sex

C33. In these situations are the relationships as satisfactory as you would like them to be

If not, what do you think are some of the major difficulties

C34. RATING OF MALE RELATIONSHIPS

Based on the last information you have told me, concerning how you get on with members of the same sex, could you rate how you get on choosing one of the following that best describes how you get on

1. very satisfactory
2. moderately satisfactory
3. neither satisfactory nor unsatisfactory, just so
4. moderately unsatisfactory
5. very unsatisfactory

C35. FEMALE INTERPERSONAL RELATIONSHIPS

Could you describe how you get on with members of the opposite sex

C36. In these situations do you get on as well as you would like to

If not, what do you feel are some of the major difficulties

C37. RATING OF FEMALE RELATIONSHIPS

Based on the above information about how you get on with the opposite sex, could you rate your relations choosing one of the following choices

1. very satisfactory
2. moderately satisfactory
3. neither satisfactory nor unsatisfactory, just so
4. moderately unsatisfactory
5. very unsatisfactory



C38. FRIENDSHIPS

Do you have any close friends 1. YES 2. NO

If yes, how many

1. more than two close friends
2. one or two close friends
3. no close friends

## C39. Do your friends ever get angry at you

1. YES
2. NO

If yes, why do you think they get angry at you

## C40. How do you think your friends feel about you

C41. RATING OF ABILITY TO GET ALONG

Based on what you have told me about your friends and other people, how would you rate yourself in your ability to get along, choosing one of the following choices

1. very easy to get along with
2. moderately easy to get along with
3. neither easy nor hard to get along with
4. moderately hard to get along with
5. very hard to get along with

Total interpersonal  
functioning score

--	--

PSYCHOLOGICAL FUNCTIONINGC42. SUBJECTIVE HAPPINESS

In your everyday life, do you feel you are happy

1. YES
2. NO

If not, why not

C43. Are you as happy as you would like to be

1. YES                      2. NO

If not, why not

C44. RATING OF SUBJECTIVE HAPPINESS

Based on what you said, could you choose one of the following that best describes your state of happiness

1. very happy
2. moderately happy
3. neither happy nor unhappy; in between
4. moderately unhappy
5. very unhappy

C45. SUBJECTIVE MENTAL HEALTH

In your everyday life how do you feel about your mental health

C46. Do you feel it is as good as you would like it to be

1. YES                      2. NO

If not, what do you feel are the main difficulties

C47. RATING OF SUBJECTIVE MENTAL HEALTH

Based on what you said, could you choose one of the following that best describes your mental health

1. very good
2. moderately good
3. neither good nor bad
4. moderately bad
5. very bad

C48. SUBJECTIVE UNDERSTANDING

Do you feel that you are able to understand your problems as much as you would like to

C49. RATING OF SUBJECTIVE UNDERSTANDING

Please choose one of the following that best describes your ability to understand your problems

1. not at all
2. a little
3. to a moderate extent
4. to a very great extent

C50. SUBJECTIVE ABILITY TO HANDLE PROBLEMS

Do you feel you are able to handle your problems as well as you would like to

If not, what do you feel are the major difficulties you have in this area

C51. RATING OF SUBJECTIVE ABILITY TO HANDLE PROBLEMS

Please choose one of the following that best describes your ability to handle your problems

1. not at all
2. a little
3. to a moderate extent
4. to a very great extent

C52. GENERAL FUNCTIONING

Are you getting along as well as you would like to

1. YES
2. NO

If not, what are some of the major difficulties you are facing

C53. RATING OF GENERAL FUNCTIONING

Please choose one of the following that best describes how you are getting along

1. very satisfactorily
2. moderately satisfactorily
3. neither satisfactorily nor unsatisfactorily
4. moderately unsatisfactorily
5. very unsatisfactorily

C54. FUTURE ORIENTATION

How do you feel life will be like, when you leave treatment

C55. What do you think will be the problems you might face when you leave treatment

C56. Do you think you will be able to handle these problems as well as you would like

C57. RATING OF FUTURE ORIENTATION

Based on the above information, could you choose one of the following that best describes how you feel about the future

1. hopeful about the future
2. moderately hopeful about the future
3. neither hopeful nor pessimistic about the future
4. moderately pessimistic
5. very pessimistic

Total psychological  
functioning score

--	--

Total social  
functioning score

--	--

A58. OVERALL PRIOR TREATMENT

Were you ever treated for a drinking problem before?  
 If so, in what type of agency (Was it a general hospital, or mental hospital? Was it on an inpatient or outpatient basis? Was treatment given by your GP? Did you ever attend AA?

Tick as appropriate:-

- 0 = General hospital - inpatient
- 1 = Mental hospital - inpatient
- 2 = General hospital - outpatient
- 3 = Mental hospital - outpatient
- 4 = GP
- 5 = AA
- 6 = GP + treatment at a hospital (inpatient or outpatient)
- 7 = Other combination of inpatient and outpatient treatment
- 8 = AA + treatment at a hospital
- 9 = AA + GP + hospital treatment
- X = No treatment
- Y = N/K

A59. LENGTH OF PRIOR TREATMENT

How much previous treatment for alcoholism have you had (get patients to indicate to the best of their ability how long they were in each agency and sum all lengths)

- |                  |                   |
|------------------|-------------------|
| 0 = < 1 month    | 3 = 6 - 12 months |
| 1 = 1 - 3 months | 4 = 12 or more    |
| 2 = 4 - 6 months | 5 = never         |

A60. PRIOR TREATMENT AT PRESENT AGENCY

Have you been on this ward (in this programme) before

1. YES                      2. NO

A61. REFERRAL

Who referred you for treatment

- |                                    |                            |
|------------------------------------|----------------------------|
| 0 = Court                          | 6 = Samaritans             |
| 1 = Self                           | 7 = Social work department |
| 2 = AA                             | 8 = Emergency room         |
| 3 = GP                             | 9 = Relatives              |
| 4 = General hospital physician     | X = Other                  |
| 5 = Psychiatric hospital physician | Y = N/K                    |

A62. LENGTH OF DRINKING PROBLEM

How long have you had a drinking problem

- |                   |                 |
|-------------------|-----------------|
| 0 = < 3 months    | 3 = 1 - 2 years |
| 1 = 3 - 6 months  | 4 = 2 - 5 years |
| 2 = 6 - 12 months | 5 = > 5 years   |

D63. DRINKING PROBLEMS

Now, I am going to mention some things that often happen to persons with drinking problems. Please tell me if you have had any in the last 10 weeks.

1. Morning shakes
2. Times when you can't remember
3. DT's
4. Times when you think you hear things
5. A mental breakdown because of drink (alcohol psychosis)
6. Withdrawal fits

Total


A64. AGE OF FIRST DRINK

How old were you when you first took a drink

- |                |                        |
|----------------|------------------------|
| 0 = 14 or less | 6 = 20                 |
| 1 = 15         | 7 = 21 - 25            |
| 2 = 16         | 8 = 26 - 35            |
| 3 = 17         | 9 = 36 - 45            |
| 4 = 18         | X = 46 and over        |
| 5 = 19         | Y = unknown to patient |

A65. AGE WHEN PATIENT FIRST GOT DRUNK

How old were you when you first got drunk

- |                |                        |
|----------------|------------------------|
| 0 = 14 or less | 6 = 20                 |
| 1 = 15         | 7 = 21 - 25            |
| 2 = 16         | 8 = 26 - 35            |
| 3 = 17         | 9 = 36 - 45            |
| 4 = 18         | X = 46 and over        |
| 5 = 19         | Y = unknown to patient |

A66. GENERAL ABSTINENCE

Have you ever been able to abstain

1. YES                      2. NO

A67. HISTORY OF DRINKING WITHIN FAMILY

Were any of your relatives heavy drinkers

- |                               |                     |
|-------------------------------|---------------------|
| 1 = wife                      | 6 = grandparent(s)  |
| 2 = father                    | 7 = uncles or aunts |
| 3 = mother                    | 8 = other           |
| 4 = both father and<br>mother | 9 = none            |
| 5 = sibling(s)                | X = N/K             |

D68. DRINKING AT ADMISSION

When you were admitted to hospital or to the programme (or on day of follow-up interview) had you been drinking

1. YES                      2. NO

D69. RECENT ABSTINENCE

In the last 10 weeks, were you able to be off drink

1. YES                      2. NO

D70. LENGTH OF RECENT ABSTINENCE

During the last 10 weeks, what was the longest time in weeks that you have been able to be off drink

- |                      |                 |
|----------------------|-----------------|
| 0 = < 1 day          | 4 = 5 - 7 weeks |
| 1 = 1 day - 1 week   | 5 = 7 - 9 weeks |
| 2 = 1 week - 2 weeks | 6 = 10 weeks    |
| 3 = 2 - 5 weeks      |                 |



D71. FREQUENCY OF RECENT DRINKING

During the last 10 weeks, did you drink

- |          |                    |
|----------|--------------------|
| 1. never | 4. three times     |
| 2. once  | 5. four times      |
| 3. twice | 6. 5 or more times |

D72. LENGTH OF LONGEST BOUT

What was the length in days of the longest bout

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D73. NUMBER OF RECENT BOUTS

How many bouts have you had during the last 10 weeks

- |          |                 |
|----------|-----------------|
| 1. never | 4. three        |
| 2. one   | 5. four         |
| 3. two   | 6. five or more |

## D74. Drinking Status Index Score

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Questions 75 and 76 to be asked only at the follow-up interview.

75. Have you attended treatment as an outpatient during the last 10 weeks, including AA

- |        |       |
|--------|-------|
| 1. YES | 2. NO |
|--------|-------|

76. Number of sessions attended during last 10 weeks, including AA

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B77. Discharge status

--

MEDICALA78. ADDRESS OF GP

Can you give me the name and address of your GP

D79. CONTACT WITH GP

In the last 10 weeks, can you tell me if you visited your GP

1. YES                      2. NO

D80. REASON FOR CONTACT

Can you tell me why you visited your GP

1. Medical problem other than related to drinking
2. Medical problem related to drinking
3. Drinking problem
4. Medical and psychiatric problem
5. Psychiatric problem
6. Medical and drinking problem
7. Psychiatric problem and drinking problem
8. Other
9. Does not apply
- X. N/K

D81. PHYSICAL HEALTH

Is your physical health as good as you would like it to be considering your age

1. YES                      2. NO

A82. PHYSICAL PROBLEMS

Would you list the major physical problems you have had during the last year

D83. Of these, has any gotten worse during the last 10 weeks

D84. HEALTH RATING

Based on the above information, how would you rate your physical health during the last 10 weeks

1. very satisfactory
2. moderately satisfactory
3. neither satisfactory nor unsatisfactory, just so
4. moderately unsatisfactory
5. very unsatisfactory

ALCADD ITEMS

I am going to read some statements that persons with drinking problems are sometimes faced with. If the statement applies to you, say YES -- if not, say NO.

- |      |  |     |   |    |                          |
|------|--|-----|---|----|--------------------------|
| C85. | If I had to choose, I would rather go for a meal than drink. | YES | P | NO | <input type="checkbox"/> |
| C86. | I need a drink or two to get started in my work.             | YES | R | NO | <input type="checkbox"/> |
| C87. | I drink only to join the fun.                                | YES | R | NO | <input type="checkbox"/> |
| C88. | If I had a choice, I would rather go to a dance than drink.  | YES | P | NO | <input type="checkbox"/> |
| C89. | Drinking speeds up life for me.                              | YES | R | NO | <input type="checkbox"/> |
| C90. | I prefer to dine in restaurants which serve drinks.          | YES | P | NO | <input type="checkbox"/> |
| C91. | A drink or two is the best way to get quick energy or pep.   | YES | R | NO | <input type="checkbox"/> |
| C92. | If I had a choice, I would rather attend a show than drink.  | YES | P | NO | <input type="checkbox"/> |
| C93. | Some of my best friends are heavy drinkers.                  | YES | P | NO | <input type="checkbox"/> |
| C94. | I drink to make life more pleasant.                          | YES | R | NO | <input type="checkbox"/> |
| C95. | I often go to a cheaper neighbourhood to do my drinking.     | YES | P | NO | <input type="checkbox"/> |
| C96. | I drink because it braces me up.                             | YES | R | NO | <input type="checkbox"/> |



WARD ATMOSPHERE (OR COPES) SCORES

Questions B104 - B143

Involvement

Support

Spontaneity

Autonomy

Practical Orientation

Personal Problem Orientation

Anger and Aggression

Order and Organization

Program Clarity

Staff Control

Total

Scores

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B STAFF INFORMATIONSTAFF POSITION

1 = Physician, psychiatrist

2 = Charge nurse or ward  
sister

3 = Social worker

4 = Physician, other

5 = Psychologist

6 = Occupational or  
physical therapist

7 = Student

8 = Other

Agency No.

Identifier

Subject Status

Sex


LENGTH OF TIME WORKED ON WARD IN MONTHS

--	--

LENGTH OF TIME WORKING WITH ALCOHOLICS IN MONTHS

--	--



FORM B

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I D Number

How long in months, have you worked with alcoholics \_\_\_\_\_

Sex: Male/Female (Delete as appropriate)

For Office Use Only

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INSTRUCTIONS

Here are 42 statements which describe how staff can relate to patients. Place the number of the choice that best applies to you in the blank box to the left of the statement. If you feel that a statement does not directly apply to you, select the choice that describes how you think you might react or feel in that situation. Please take care to enter the correct number for your choice. PLEASE ANSWER EVERY QUESTION.

---oooOooo---

- a ☐ 1. I respect the patients.  
 1 = Very True;                      2 = True                      3 = Probably True  
 4 = Probably Untrue              5 = Untrue                      6 = Very Untrue
- b ☐ 2. I pretend that I like the patients or understand the patients more than I really do.  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True
- d ☐ 3. I understand the patients' words but not the way they feel.  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True.
- d ☐ 4. I am interested in knowing what the patients' experiences mean to them.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue                      5 = Untrue                      6 = Very Untrue
- b ☐ 5. I am disturbed whenever the patients talk about or ask about certain things.  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True
- a ☐ 6. I like seeing the patients.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue                      5 = Untrue                      6 = Very Untrue
- b ☐ 7. I behave just the way I feel in the relationship.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue                      5 = Untrue                      6 = Very Untrue
- a ☐ 8. I appreciate the patients.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue                      5 = Untrue                      6 = Very Untrue
- e ☐ 9. I prefer to talk only about the patients and not about myself.  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True
- e ☐ 10. I will freely tell the patients my own thoughts and feelings when they want to know them.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue                      5 = Untrue                      6 = Very Untrue

- b ☐ 11. I do not think that I hide anything from myself that I feel with the patients.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue              5 = Untrue                      6 = Very Untrue
- h ☐ 12. If the patients feel negatively towards me, I respond negatively towards them  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True
- a ☐ 13. I care about the patients.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue              5 = Untrue                      6 = Very Untrue
- d ☐ 14. My own attitudes toward some of the things that patients say or do stop me from understanding them.  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True
- g ☐ 15. I tell the patients my opinions or feelings more than they really want to know them.  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True
- b ☐ 16. I feel that the patients can trust me to be honest with them.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue              5 = Untrue                      6 = Very Untrue
- h ☐ 17. Sometimes I am warmly responsive to the patients, at other times I am cold or disapproving.  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True
- g ☐ 18. I adopt a professional role that makes it hard for the patients to know what I am like as a person.  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True
- a ☐ 19. I am interested in the patients.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue              5 = Untrue                      6 = Very Untrue
- d ☐ 20. I appreciate what the patients' experience feels like to them.  
 1 = Very True                      2 = True                      3 = Probably True  
 4 = Probably Untrue              5 = Untrue                      6 = Very Untrue
- h ☐ 21. Depending on my mood, I sometimes respond to the patients with quite a lot more warmth and interest than I do at other times  
 1 = Very Untrue                      2 = Untrue                      3 = Probably Untrue  
 4 = Probably True                      5 = True                      6 = Very True

- a ☐ 22. I do not really care what happens to the patients.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
- d ☐ 23. I do not realise how strongly the patients feel about some of the things we discuss.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
- b ☐ 24. There are times when I feel that my outward response is quite different from my inner reaction to the patients.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
- g ☐ 25. I want to say as little as possible about my own thoughts and feelings.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
- h ☐ 26. My general feeling toward the patients varies considerably.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
- a ☐ 27. I really value the patients.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue
- g ☐ 28. My own feelings and thoughts are always available to the patients but never imposed on them.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue
- b ☐ 29. I don't think that I am being honest with myself about the way I feel towards the patients.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
- g ☐ 30. I am willing to let the patients use our time to get to know me better, if or when the patients want to.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue
- h ☐ 31. Sometimes I respond quite positively to the patients, other times I seem indifferent.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
- b ☐ 32. Sometimes I am not at all comfortable (with the patients) but we go on, outwardly ignoring it.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
- b ☐ 33. I feel that I am being genuine with the patients.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue

34. I am more interested in expressing and communicating myself, than in knowing and understanding the patients.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
35. I feel deep affection for the patients.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue
36. I usually understand all of what the patients say to me.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue
37. I tend to avoid any attempt the patients make to get to know me better.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
38. I do not try to mislead the patients about my own thoughts or feelings.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue
39. I regard the patients as disagreeable people.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True
40. I am willing to tell the patients my own thoughts or feelings, when I am sure they really want to know them.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue
41. When the patients do not say what they mean at all clearly, I still understand them.  
 1 = Very True      2 = True      3 = Probably True  
 4 = Probably Untrue      5 = Untrue      6 = Very Untrue
42. At times I feel contempt for the patients.  
 1 = Very Untrue      2 = Untrue      3 = Probably Untrue  
 4 = Probably True      5 = True      6 = Very True

## FORM C

--

Name (for patients only) \_\_\_\_\_

ID Number 

--	--

Sex: Male/Female (delete as appropriate)

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Are you a patient (tick)

Yes    No

For Staff Only

What is your position (give full title) \_\_\_\_\_

How long, in months, have you worked in this programme or ward \_\_\_\_\_

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INSTRUCTIONS

Here are 40 Statements. They are statements about wards.

You are to decide which statements are true about your ward and which are false.

Circle T when you think the statement is mostly true about your ward.

Circle F when you think the statement is mostly false about your ward.

If you are unsure about a statement, select the answer that best applies. If the statement is more true than false, select true. If the statement is more false than true, select false. If a statement does not directly apply to your programme make the best possible choice based on how you think it might be, if the situation happened.

PLEASE ANSWER EVERY STATEMENT

DO NOT WRITE  
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ONLY.

- |    |                          |   |   |   |
|----|--------------------------|---|---|---|
| aa | <input type="checkbox"/> | 1. Patients put a lot of energy into what they do around here.                    | T | F |
| aa | <input type="checkbox"/> | 2. This is a lively ward.   | T | F |
| c  | <input type="checkbox"/> | 3. Patients tend to hide their feelings from one another.                         | T | F |
| SS | <input type="checkbox"/> | 4. Patients tell each other about their personal problems.                        | T | F |
| kk | <input type="checkbox"/> | 5. The patients know when doctors will be on the ward.                            | T | F |
| b  | <input type="checkbox"/> | 6. Doctors have very little time to encourage patients.                           | T | F |
| l  | <input type="checkbox"/> | 7. The staff very rarely punish patients by restricting them.                     | T | F |
| JJ | <input type="checkbox"/> | 8. Patients' activities are carefully planned.                                    | T | F |
| g  | <input type="checkbox"/> | 9. Patients hardly ever discuss their sexual lives.                               | T | F |
| aa | <input type="checkbox"/> | 10. The patients are proud of this ward.  | T | F |
| hh | <input type="checkbox"/> | 11. Patients often complain.  | T | F |
| ee | <input type="checkbox"/> | 12. New treatment approaches (ways of doing things) are often tried on this ward. | T | F |
| dd | <input type="checkbox"/> | 13. The staff act on patients' suggestions  | T | F |
| bb | <input type="checkbox"/> | 14. The staff know what the patients want.  | T | F |
| SS | <input type="checkbox"/> | 15. Personal problems are openly talked about                                     | T | F |
| d  | <input type="checkbox"/> | 16. Very few patients have any responsibility on the ward.                        | T | F |

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ONLY

cc ☐f ☐jj ☐hh ☐c ☐bb ☐cc ☐ll ☐j ☐h ☐kk ☐e ☐l ☐jj ☐dd ☐ss ☐b ☐hh ☐

- |   |   |   |
|---|---|---|
| 17. Patients say anything they want to the doctors.                                 | T | F |
| 18. There is very little emphasis on making patients more practical.                | T | F |
| 19. This is a very well-organised ward.   | T | F |
| 20. Patients often criticise or joke about the ward staff                           | T | F |
| 21. It is hard to tell how patients are feeling on this ward.                       | T | F |
| 22. Staff are interested in following up the patients once they leave the hospital. | T | F |
| 23. Patients are encouraged to plan for the future.                                 | T | F |
| 24. Patients who break the ward rules are punished for it.                          | T | F |
| 25. The ward sometimes gets very messy.   | T | F |
| 26. Patients on this ward rarely argue  | T | F |
| 27. If a patient's medicine is changed, a nurse or doctor always tells him why.     | T | F |
| 28. There is very little emphasis on what patients will be doing after they leave.  | T | F |
| 29. Patients may interrupt a doctor when he is talking.                             | T | F |
| 30. The staff make sure that the ward is always tidy.                               | T | F |
| 31. Patients are expected to take leadership on the Ward.                           | T | F |
| 32. Patients are expected to share their personal problems with each other.         | T | F |
| 33. Nurses have very little time to encourage patients.                             | T | F |
| 34. Staff sometimes argue with each other.  | T | F |



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|----|--------------------------|--|---|----|
| k  | <input type="checkbox"/> | 35. Doctors don't explain what treatment is about to patients.                         | T | F  |
| dd | <input type="checkbox"/> | 36. Patients here are encouraged to be independent.                                    | T | F. |
| c  | <input type="checkbox"/> | 37. Patients are careful about what they say when staff are around.                    | T | F  |
| a  | <input type="checkbox"/> | 38. There is very little group spirit on this ward.                                    | T | F  |
| ll | <input type="checkbox"/> | 39. If a patient argues with another patient, he will get into trouble with the staff. | T | F  |
| kk | <input type="checkbox"/> | 40. Ward rules are clearly understood by the patients.                                 | T | F  |

FORM D

--

Name (for patients only) \_\_\_\_\_

ID Number

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Sex: Male/Female (delete as appropriate)

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Yes No

Are you a patient? (tick).

For Staff Only

What is your position? (give full title)

How long, in months, have you worked in this programme or ward? \_\_\_\_\_

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INSTRUCTIONS

There are 39 statements. They are statements about outpatient programmes.

You are to decide which statements are true about your programme and which are false.

Select T (Or say True) when you think the statement is mostly true about your programme.

Select F (Or say False) when you think the statement is mostly false about your programme.

If you are unsure about a statement, select the answer that best applies. If the statement is more true than false, select true. If the statement is more false than true, select false. If a statement does not directly apply to your programme, make the best possible choice based on how you think it might be if the situation happened.

PLEASE ANSWER EVERY STATEMENT

DO NOT WRITE  
IN THESE SPACES  
FOR  
YOUR USE ONLY

- |                             |   |   |   |
|-----------------------------|---|---|---|
| na <input type="checkbox"/> | 1. Patients put a lot of energy into what they do here.                   | T | F |
| na <input type="checkbox"/> | 2. This is a lively place.  | T | F |
| c <input type="checkbox"/>  | 3. Patients tend to hide their feelings from one another.                 | T | F |
| gg <input type="checkbox"/> | 4. Patients tell each other about their intimate personal problems.       | T | F |
| kk <input type="checkbox"/> | 5. The patients always know when the staff will be around.                | T | F |
| b <input type="checkbox"/>  | 6. Staff have very little time to encourage patients.                     | T | F |
| l <input type="checkbox"/>  | 7. The staff very rarely punish patients by taking away their privileges. | T | F |
| jj <input type="checkbox"/> | 8. Patients' activities are carefully planned.                            | T | F |
| g <input type="checkbox"/>  | 9. Patients hardly ever discuss their sexual lives.                       | T | F |
| na <input type="checkbox"/> | 10. The patients are proud of this programme.                             | T | F |
| hh <input type="checkbox"/> | 11. The patients often complain.  | T | F |
| ee <input type="checkbox"/> | 12. New treatment approaches (ways of doing things) are often tried here. | T | F |
| ii <input type="checkbox"/> | 13. The staff almost always act on patients' suggestions                  | T | F |
| bb <input type="checkbox"/> | 14. The staff know what the patients want.                                | T | F |
| gg <input type="checkbox"/> | 15. Personal problems are openly talked about                             | T | F |

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|----|--------------------------|--|---|---|
| d  | <input type="checkbox"/> | 16. Very few patients have any responsibility for the programme here.  | T | F |
| cc | <input type="checkbox"/> | 17. Patients say anything they want to the staff.  | T | F |
| e  | <input type="checkbox"/> | 18. There is very little emphasis on teaching patients solutions to practical problems.                      | T | F |
| jj | <input type="checkbox"/> | 19. This is a very well-organised programme.   | T | F |
| hh | <input type="checkbox"/> | 20. Patients often criticise or joke about the staff   | T | F |
| c  | <input type="checkbox"/> | 21. It is hard to tell how patients are feeling here.  | T | F |
| bb | <input type="checkbox"/> | 22. Staff are very interested in following up patients once they leave the programme.                        | T | F |
| ce | <input type="checkbox"/> | 23. Patients are expected to make detailed specific plans for the future.                                    | T | F |
| ll | <input type="checkbox"/> | 24. Patients who break the rules are often punished for it.  | T | F |
| j  | <input type="checkbox"/> | 25. This place usually looks a little untidy.  | T | F |
| h  | <input type="checkbox"/> | 26. Patients here rarely argue.  | T | F |
| kk | <input type="checkbox"/> | 27. If a patient's programme is changed, staff always tell him why.  | T | F |
| e  | <input type="checkbox"/> | 28. There is very little discussion about exactly what patients will be doing when they leave the programme. | T | F |
| jj | <input type="checkbox"/> | 29. The staff make sure that this place is always neat.  | T | F |
| l  | <input type="checkbox"/> | 30. Patients may interrupt staff when they are talking   | T | F |
| dd | <input type="checkbox"/> | 31. Patients are expected to take leadership here.   | T | F |
| GG | <input type="checkbox"/> | 32. Patients are expected to share their personal problems.  | T | F |
| hh | <input type="checkbox"/> | 33. Staff sometimes argue openly with each other.  | T | F |
| k  | <input type="checkbox"/> | 34. Staff rarely give patients a detailed explanation about what the programme is about.                     | T | F |
| c  | <input type="checkbox"/> | 35. Patients are careful about what they say when staff are around.  | T | F |

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|----|--------------------------|--|---|---|
| dd | <input type="checkbox"/> | 36. Patients here are very strongly encouraged to be independent.                          | T | F |
| a  | <input type="checkbox"/> | 37. There is very little group spirit in this programme.                                   | T | F |
| ll | <input type="checkbox"/> | 38. If a patient fights with another patient he will get into real trouble with the staff. | T | F |
| kk | <input type="checkbox"/> | 39. The programme rules are clearly understood by the patients.                            | T | F |



DEPARTMENT OF SOCIAL ADMINISTRATION  
UNIVERSITY OF EDINBURGH  
5 BUCCLEUCH PLACE  
TOP FLAT  
EDINBURGH 9.

### Research Project in Alcoholism

Thank you for co-operating in this project. This is to let you know I have arranged a further Appointment on .....  
at .....  
at ..... am/pm. If, for any reason this arrangement is inconvenient for you, please return the enclosed postal card. If I do not hear from you, I will assume the appointment is convenient as arranged. You will understand that this appointment is part of the research project and is not part of treatment.

If you have any other questions, or want to arrange another appointment then please return the postal card. If you ask for a new appointment please tell me when it will be best for you. If I do not hear from you, I will assume that the appointment that I have scheduled is acceptable. It is important to attend, even if you have been drinking.

Yours sincerely,

*Jay Fischer*  
Jay Fischer

Research Social Worker.

## POST CARD

---

To be filled in and returned only if  
you cannot attend the appointment as  
scheduled

---

I cannot attend the appointment on.....

as scheduled, but I can attend on

.....

.....

.....

.....

.....

Signature.....



## APPENDIX B

Originally, it was not intended to ask patients about problems<sup>1</sup> relating to heavy drinking during the follow-up period. However, it was subsequently decided to do so, in order to see whether or not there was a decrease in the number of patients reporting a particular drinking problem for the follow-up period, as compared with the ten weeks prior to admission or to first being seen as an outpatient. For the purposes of brevity, this latter time period will be called the pre-treatment<sup>2</sup> period. Since we are interested in the change in the number of patients reporting particular drinking problems during the two time periods, data can only be presented for patients having both an admission and follow-up interview.

Given that treatment was not evaluated in terms of changes in the number of patients reporting problems associated with heavy drinking, it was decided to include material relating to such changes in an appendix, rather than in the text of the thesis.

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<sup>1</sup>In the Evaluation Project Form, question 63 was asked in terms of a number of problems associated with heavy drinking; hence, the phrase "drinking problem", which is used in the appendix. The problems in question can be thought of as symptoms of heavy drinking.

<sup>2</sup>Pre-treatment refers to treatment received while the patient was a subject in the present study, and not to any prior treatment.

The significance of the difference in the number of patients reporting a particular drinking problem during the follow-up period, as compared to the pre-treatment period, was determined by the McNemar test for the significance of changes (Siegel, 1956). The results from this test for each of the drinking problems in question 63 are given in tables 1 through 6.

TABLE 1.--Changes in the Number of Patients Reporting Morning Shakes Occurring during the Pre-Treatment as Compared with the Follow-Up Period

N=60

<u>Pre-Treatment Morning Shakes</u>	<u>Follow-Up Morning Shakes</u>	
	<u>Absence</u>	<u>Presence</u>
Presence	34	12
Absence	12	2

$$\chi^2=26.09; \text{ d.f.}=1; p<.001$$

TABLE 2.--Changes in the Number of Patients Reporting Memory Loss Occurring during the Pre-Treatment as Compared with the Follow-Up Period

N=60

<u>Pre-Treatment Memory Loss</u>	<u>Follow-Up Memory Loss</u>	
	<u>Absence</u>	<u>Presence</u>
Presence	31	23
Absence	4	2

$$\chi^2=23.76; \text{ d.f.}=1; p<.001$$

TABLE 3.--Changes in the Number of Patients Reporting DT's Occurring during the Pre-Treatment as Compared with the Follow-Up Period

N=60

<u>Pre-Treatment DT's</u>	<u>Follow-Up DT's</u>	
	<u>Absence</u>	<u>Presence</u>
Presence	13	4
Absence	39	4

$$x^2=3.76; \text{ d.f.}=1 \text{ NS}$$

TABLE 4.--Changes in the Number of Patients Reporting Auditory Hallucinations Occurring during the Pre-Treatment as Compared with the Follow-Up Period

N=60

<u>Pre-Treatment Auditory Hallucinations</u>	<u>Follow-Up Auditory Hallucinations</u>	
	<u>Absence</u>	<u>Presence</u>
Presence	11	8
Absence	34	7

$$x^2=0.50; \text{ d.f.}=1 \text{ NS}$$

TABLE 5.--Changes in the Number of Patients Reporting Mental Breakdowns Occurring during the Pre-Treatment as Compared with the Follow-Up Period

N=60

<u>Pre-Treatment Mental Breakdown</u>	<u>Follow-Up Mental Breakdown</u>	
	<u>Absence</u>	<u>Presence</u>
Presence	14	9
Absence	34	3

$$x^2=5.88; \text{ d.f.}=1; p<.05$$

TABLE 6.--Changes in the Number of Patients Reporting Withdrawal Symptoms Occurring during the Follow-Up Period as Compared with the Follow-Up Period

N=60

Pre-Treatment Withdrawal <u>Symptoms</u>	Follow-Up Withdrawal Symptoms	
	<u>Absence</u>	<u>Presence</u>
Presence	29	15
Absence	12	4

$$\chi^2=17.45; \text{ d.f.}=1; p<.001$$

From the above tables, it can be concluded that patients show a significant reduction in morning shakes, memory loss, mental breakdowns and withdrawal symptoms occurring during the follow-up period, as compared to the pre-treatment period. To the extent that competing factors, such as improvement in physical health, can be ruled out, one could attribute the decrease in drinking problems to the cessation or reduction in alcohol consumption following treatment.

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## DECLARATION

I hereby declare that this thesis has been composed  
by myself and that all research relating to the thesis  
has been done solely by the author .

Signed

A handwritten signature in cursive script, appearing to read "Jay Fischer", with a long horizontal flourish extending to the right.

Jay Fischer